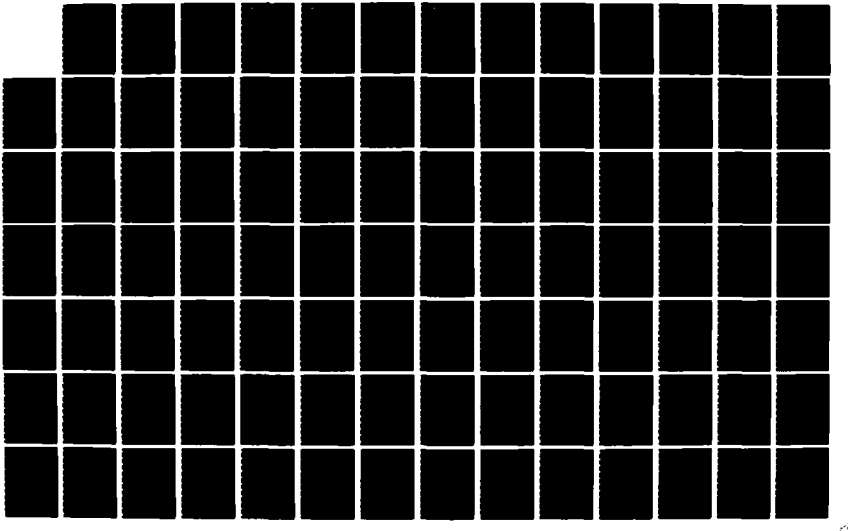
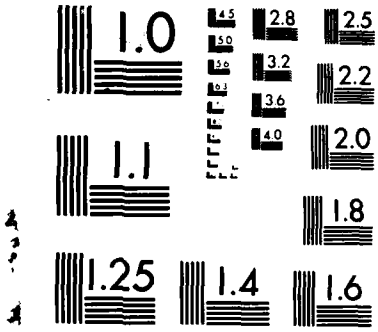
AD-A174 196 INSTALLATION RESTORATION PROGRAM PHASE II 1/9
CONFIRMATION/QUANTIFICATION STAGE 1 VOLUME 2 APPENDIX A
(U) RADIAN CORP AUSTIN TX OCT 86 F33615-84-D-4402
UNCLASSIFIED F/G 13/2 NL





MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

DCN 86-214-114-06-03

INSTALLATION RESTORATION PROGRAM
PHASE II - CONFIRMATION/QUANTIFICATION
STAGE 1

VOLUME 2 - APPENDIX A

FINAL REPORT FOR CARSWELL AFB, TEXAS

HEADQUARTERS STRATEGIC AIR COMMAND
COMMAND SURGEON'S OFFICE (HQSAC/SGPB)
OFFUTT AFB, NEBRASKA 68113

OCTOBER 1986

PREPARED BY:
RADIAN CORPORATION
8501 MO-PAC BOULEVARD
POST OFFICE BOX 9948
AUSTIN, TEXAS 78766

USAF CONTRACT NO. F33615-84-D-4402, DELIVERY ORDER NO. 6
RADIAN CONTRACT NUMBER 214-114-06

APPROVED FOR PUBLIC RELEASE
DISTRIBUTION UNLIMITED

NOV 1 8 1986

USAFOEHL TECHNICAL PROGRAM MANAGER
MAJOR GEORGE R. NEW
TECHNICAL SERVICES DIVISION (TS)

UNITED STATES AIR FORCE
OCCUPATIONAL AND ENVIRONMENTAL HEALTH LABORATORY (USAFOEHL)
TECHNICAL SERVICES DIVISION (TS)
BROOKS AIR FORCE BASE, TEXAS 78235-5000

AD-A174 196

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CORPORATION

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Alexandria, Virginia 22314

A-1 23

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APPENDIX A
Analytical Data

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TABLE A-1. KEY TO LAB REPORTS AND SITES

Lab Report #	Site/Analyses
8501052	Landfill 4/Soil
8501053	Waste Burial Area/Soil
8501057	Flightline Drainage Ditch/Soil
8501058	Waste Burial Area/Soil
8501059	Landfill 4/Soil
8501068	Flightline Drainage Ditch/Soil
8501069	Flightline Drainage Ditch/Soil
8501070	Fire Training Area 2/Soil
8501083	Landfill 5/Soil
8501084*	Landfill 4/Surface Water
	Landfill 5/Surface Water
	Fire Training Area 2/Surface Water
	Unnamed Stream/Surface Water
8501085	Entomology Dry Well/Soil
8501086	POL Tank Farm/Soil
8501087	Fire Training Area 2/Soil
8501088	Fire Training Area 1/Soil
8501089	POL Tank Farm/Ground Water
	Unnamed Stream/Ground Water
8501100	POL Tank Farm/Ground Water
8501101	POL Tank Farm/Soil
8501134	Landfill 1/Soil
8501135	Fire Training Area 1/Soil
8502027	Landfill 4/Ground Water
8502028	Landfill 4/Ground Water
8502035	Landfill 1/Ground Water
	Waste Burial Area/Ground Water
	Fire Training Area 1/Ground Water
8502036	Landfill 5/Ground Water
8502043	Fire Training Area 2/Ground Water
8502044	Waste Burial Area/Ground Water
	Fire Training Area 1/Ground Water
	Entomology Dry Well/Ground Water
8502053	Landfill 1/Ground Water
	Entomology Dry Well/Ground Water
8502115	Weapons Storage Area/Ground Water
8502116	Landfill 4/Surface Water
	Landfill 5/Surface Water
8502160	Weapons Storage Area/Soil
	Unnamed Stream/Soil
8503006	Fire Training Area 2/Surface Water
	Unnamed Stream/Surface Water

(Continued)

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TABLE A-1. (Continued)

Lab Report #	Site/Analyses
8503007	Unnamed Stream/Soil
	Flightline Drainage Ditch/Soil
8503049	Landfill 1/Ground Water
8503050	Landfill 4/Ground Water
8503051	Landfill 4/Ground Water
	Landfill 5/Ground Water
	Waste Burial Area/Ground Water
8503063	Landfill 5/Ground Water
	Fire Training Area 1/Ground Water
8503064	Entomology Dry Well/Ground Water
8503081	Landfill 5/Ground Water
	Waste Burial Area/Ground Water
	Fire Training Area 2/Ground Water
8503082	Entomology Dry Well/Ground Water
	Landfill 4/Ground Water
	Landfill 5/Ground Water
8503098	Landfill 1/Ground Water
8503281	Landfill 4/Ground Water
	Landfill 5/Ground Water
8505161*	Landfill 4/Surface Water
	Landfill 5/Surface Water
	Fire Training Area 2/Surface Water
	Unnamed Stream/Surface Water
8511146**	Landfill 1/Ground Water
	Landfill 4/Ground Water
	Landfill 5/Ground Water
	Fire Training Area 1/Ground Water
	Fire Training Area 2/Ground Water
	Oil/Water Separator/Surface Water
	Unnamed Stream/Surface Water

*NOTE: Report 850561 presents results of 602 analyses of resampled locations reported in 8501084.

**NOTE: Report 8511146 presents results of metals analyses of resampled locations reported in previous reports.

CORPORATION

PAGE 1 Analytical Serv REPORT LAB # 85-01-052

RECEIVED: 01/15/85 02/20/85 09:19:29

REPORT TO: Radian
Bl 4
Austin

ATTEN: Larry French

CLIENT: CARSWELL D06 SAMPLES: 9
COMPANY: Carswell AFB
FACILITY:

PREPARED BY: Radian Analytical Services
8501 MoPac Blvd.
P.O. Box 9948
Austin, Texas 78766

ATTEN:
PHONE: (512) 454-4797

CERTIFIED BY

CONTACT CONOVER

WORK ID: site 4
TAKEN: LF
TRANS: Fed Ex
TYPE:
P.O. #: 214-114-06-42
INVOICE: under separate cover

Footnotes and Comments

* Indicates a value less than 5 times the detection limit. Potential error for such low values ranges between 50 and 100%.

@ Indicates that spike recovery for this analysis on the specific matrix was not within acceptable limits indicating an interferent present.

SAMPLE IDENTIFICATION

01 4A2
02 4B3
03 4B4
05 4B4 QC
06 4C4
07 4C6
08 4D4
09 4E5
10 4E7

Analytical Serv TEST CODES and NAMES used on this report

EP MET RCRA Metals
PHEN A Total Phenolics
PREP W Special Digestion Method
PREP X Special Digestion Method

CORPORATION

PAGE 2 Analytical Serv REPORT LAB # 85-01-052
RECEIVED: 01/15/85 RESULTS BY TEST

TEST CODE default units	Sample 01 (entered units)	Sample 02 (entered units)	Sample 03 (entered units)	Sample 05 (entered units)	Sample 06 (entered units)
PHEN_A mg/L	<.1 ug/g	<.1 ug/g	<.1 ug/g	<.1 ug/g	0.3 ug/g
PREP_W date complete	01/24/85	01/24/85	01/24/85	01/24/85	01/24/85
PREP_X date complete	02/13/85	02/13/85	02/13/85	02/13/85	02/13/85

TEST CODE default units	Sample 07 (entered units)	Sample 08 (entered units)	Sample 09 (entered units)	Sample 10 (entered units)
PHEN_A mg/L	0.2 ug/h	0.4 ug/g	0.4 ug/g	0.3 ug/g
PREP_W date complete	01/24/85	01/24/85	01/24/85	01/24/85
PREP_X date complete	02/13/85	02/13/85	02/13/85	02/13/85

CORPORATION

PAGE 3 Analytical Serv REPORT LAB # 85-01-052
RECEIVED: 01/15/85 Results by Sample

SAMPLE ID 4A2 FRACTION 01A TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 01/14/85 Category

DATE ANALYZED 02/19/85 VERIFIED BY DLH

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	2.0	AS	Arsenic	5.7
BA	Barium	16	HG	Mercury	<.04
CD	Cadmium	0.32	PB	Lead	7.8
CR	Chromium	1.7	SE	Selenium	<6.1

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/g unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

CORPORATION

PAGE 4 Analytical Serv REPORT LAB # 85-01-052
RECEIVED: 01/15/85 Results by Sample

SAMPLE ID 483 FRACTION 02A TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 01/14/85 Category

DATE ANALYZED 02/19/85 VERIFIED BY DLH

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	1.4	AS	Arsenic	9.4
BA	Barium	50	HG	Mercury	<.04
CD	Cadmium	0.54	PB	Lead	7.5
CR	Chromium	2.0	SE	Selenium	<6.6

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/g unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

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PAGE 5 Analyti al Serv REPORT LAB # 85-01-052

RECEIVED: 01/15/85 Results by Sample

SAMPLE ID 484 FRACTION 03A TEST CODE EP MET NAME RCRA Metals

Date & Time Collected 01/14/85 Category

DATE ANALYZED 02/19/85 VERIFIED BY DLH

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	0.58	AS	Arsenic	<5.1
BA	Barium	34	HG	Mercury	<.04
CD	Cadmium	<.17	PB	Lead	<6.8
CR	Chromium	1.3	SE	Selenium	<6.8

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/g unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

CORPORATION

PAGE 6 Analytical Serv REPORT LAB # 85-01-052
RECEIVED: 01/15/85 Results by Sample

SAMPLE ID 4B4 QC FRACTION 05A TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 01/14/85 Category

DATE ANALYZED 02/19/85 VERIFIED BY DLH

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	0.88	AS	Arsenic	<5.3
BA	Barium	39	HG	Mercury	<.04
CD	Cadmium	<.17	PB	Lead	<7.0
CR	Chromium	1.6	SE	Selenium	<7.0

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/g unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

CORPORATION

PAGE 7 Analytical Serv REPORT LAB # 85-01-052
RECEIVED: 01/15/85 Results by Sample

SAMPLE ID 4C4 FRACTION 06A TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 01/12/85 Category

DATE ANALYZED 02/19/85 VERIFIED BY DLH

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	1.9	AS	Arsenic	8.5
BA	Barium	18	HG	Mercury	<.04
CD	Cadmium	0.64	PB	Lead	8.3
CR	Chromium	4.8	SE	Selenium	<6.0

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/g unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

CORPORATION

PAGE 8 Analytical Serv REPORT LAB # 85-01-052
RECEIVED: 01/15/85 Results by Sample

SAMPLE ID 4C6 FRACTION 07A TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 01/12/85 Category

DATE ANALYZED 02/19/85 VERIFIED BY DLH

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	1.5	AS	Arsenic	5.9
BA	Barium	5.5	HG	Mercury	<.04
CD	Cadmium	0.42	PB	Lead	<6.3
CR	Chromium	3.7	SE	Selenium	<6.3

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/g unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

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PAGE 9 Analytical Serv REPORT LAB # 85-01-052

RECEIVED: 01/15/85 Results by Sample

SAMPLE ID 4D4 FRACTION 08A TEST CODE EP MET NAME RCRA Metals

Date & Time Collected 01/11/85 Category

DATE ANALYZED 02/19/85 VERIFIED BY DLH

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	0.83	AS	Arsenic	<5.2
BA	Barium	8.6	HG	Mercury	<.04
CD	Cadmium	<.17	PB	Lead	<7.0
CR	Chromium	1.5	SE	Selenium	<7.0

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/g unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

CORPORATION

PAGE 10 Analytical Serv REPORT LAB # 85-01-052
RECEIVED: 01/15/85 Results by Sample

SAMPLE ID 4E5 FRACTION 09A TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 01/11/85 Category

DATE ANALYZED 02/19/85 VERIFIED BY DLH

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	0.21	AS	Arsenic	<5.2
BA	Barium	2.6	HG	Mercury	<.04
CD	Cadmium	<.17	PB	Lead	<7.0
CR	Chromium	0.44	SE	Selenium	<7.0

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/g unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

CORPORATION

PAGE 11 Analytical Serv REPORT LAB # 85-01-052
RECEIVED: 01/15/85 Results by Sample

SAMPLE ID 4E7 FRACTION 10A TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 01/11/85 Category

DATE ANALYZED 02/19/85 VERIFIED BY DLH

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	0.69	AS	Arsenic	<5.4
BA	Barium	10	HG	Mercury	<.04
CD	Cadmium	0.38	PB	Lead	<7.2
CR	Chromium	3.2	SE	Selenium	<7.2

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/g unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

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PAGE 1 Analytical Serv REPORT LAB # 85-01-053

RECEIVED: 01/15/85 01/31/85 11:38:25

REPORT TO: Radian
Bl. 4
Austin

ATTEN: Larry French

CLIENT: CARSWELL DO6 SAMPLES: 2
COMPANY: Carswell AFB
FACILITY:

WORK ID: site 10
TAKEN: LF
TRANS: Fed Ex
TYPE:
P.O. #: 214-114-06-42
INVOICE: under separate cover

PREPARED BY: Radian Analytical Services
8501 MoPac Blvd.
P.O. Box 9948
Austin, Texas 78766

ATTEN:
PHONE: (512) 454-4797

CERTIFIED BY

CONTACT CONOVER

Note: Detection limits for Methods 8010 and 8020 are 10 ug/kg and 250 ug/kg, respectively.

Footnotes and Comments

* Indicates a value less than 5 times the detection limit. Potential error for such low values ranges between 50 and 100%.

@ Indicates that spike recovery for this analysis on the specific matrix was not within acceptable limits indicating an interferent present.

SAMPLE IDENTIFICATION

01 1083
02 1086

Analytical Serv TEST CODES and NAMES used on this report

ONG A Oil and Grease
SW8010 GC-HECD Haloq. Vol. - SW846
SW8020 GC-PID Arom. Vol. - SW846

CORPORATION

PAGE 2 Analytical Serv REPORT LAB # 85-01-053
RECEIVED: 01/15/85 Results by Sample

SAMPLE ID 10B3 SAMPLE # 01 FRACTIONS: A, B, C
Date & Time Collected 01/14/85 Category

ONG_A <10
ug/g

CORPORATION

PAGE 3 Analytical Serv REPORT LAB # 85-01-053
RECEIVED: 01/15/85 Results by Sample

SAMPLE ID 10B3 FRACTION 01B TEST CODE SW8010 NAME GC-HECD Haloq. Vol. - SW846
Date & Time Collected 01/14/85 Category

DATA FILE B DATE INJECTED 01/16/85 ANALYST MCL VERIFIED BY JSG
CONC. FACTOR INSTRUMENT b COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Chloromethane	ND		Trichloroethene	ND
	Bromomethane	ND		Dibromochloromethane	ND
	Vinyl Chloride	ND		1,1,2-Trichloroethane	ND
	Chloroethane	ND		cis-1,3-Dichloropropene	ND
	Methylene Chloride	ND		2-Chloroethylvinyl Ether	ND
	Trichlorofluoromethane	ND		Bromoform	ND
	1,1-Dichloroethene	ND		1,1,2,2-Tetrachloroethane	ND
	1,1-Dichloroethane	ND		Tetrachloroethylene	ND
	trans-1,2-Dichloroethene	ND		Chlorobenzene	ND
	Chloroform	ND		1,3-Dichlorobenzene	ND
	1,2-Dichloroethane	ND		1,2-Dichlorobenzene	ND
	1,1,1-Trichloroethane	ND		1,4-Dichlorobenzene	ND
	Carbon Tetrachloride	ND			
	Bromodichloromethane	ND			
	1,2-Dichloropropane	ND			
	trans-1,3-Dichloropropene	ND			

SAMPLE ID 10B3 FRACTION 01B TEST CODE SW8010 NAME GC-HECD Haloq. Vol.- SW846
Date & Time Collected 01/14/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

All results reported in ug/kg unless otherwise specified.

ND = not detected at detection limit of 1 ug/kg, unless otherwise specified.

CORPORATION

PAGE 5 Analytical Serv REPORT LAB # 85-01-053

RECEIVED: 01/15/85 Results by Sample

SAMPLE ID 1083 FRACTION 01C TEST CODE SW8020 NAME GC-PID Arom. Vol.- SW846

Date & Time Collected 01/14/85 Category

DATA FILE D DATE INJECTED 01/17/85 ANALYST MCL VERIFIED BY JSG

CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

All results reported in ug/kg unless otherwise specified.

ND = not detected at detection limit of 1 ug/kg, unless otherwise specified.

CORPORATION

PAGE 6 Analytical Serv REPORT LAB # 85-01-053
RECEIVED: 01/15/85 Results by Sample

SAMPLE ID 1086 SAMPLE # 02 FRACTIONS: A, B, C
Date & Time Collected 01/14/85 Category

ONG_A <10
ug/g

CORPORATION

PAGE 7 Analytical Serv REPORT LAB # 85-01-053
RECEIVED: 01/15/85 Results by Sample

SAMPLE ID 10B6 FRACTION 02B TEST CODE SW8010 NAME GC-HECD Haloq. Vol. - SW846
Date & Time Collected 01/14/85 Category

DATA FILE B DATE INJECTED 01/16/85 ANALYST MCL VERIFIED BY JSG
CONC. FACTOR INSTRUMENT b COMPOUNDS DETECTED 2

SCAN	COMPOUND	RESULT
	Chloromethane	ND
	Bromomethane	ND
	Vinyl Chloride	ND
	Chloroethane	ND
	Methylene Chloride	ND
	Trichlorofluoromethane	ND
	1,1-Dichloroethene	ND
	1,1-Dichloroethane	ND
	trans-1,2-Dichloroethene	ND
	Chloroform	ND
	1,2-Dichloroethane	ND
1	1,1,1-Trichloroethane	44
	Carbon Tetrachloride	ND
	Bromodichloromethane	ND
	1,2-Dichloropropane	ND
	trans-1,3-Dichloropropene	ND

SCAN	COMPOUND	RESULT
2	Trichloroethene	67
	Dibromochloromethane	ND
	1,1,2-Trichloroethane	ND
	cis-1,3-Dichloropropene	ND
	2-Chloroethylvinyl Ether	ND
	Bromoform	ND
	1,1,2,2-Tetrachloroethane	ND
	Tetrachloroethylene	ND
	Chlorobenzene	ND
	1,3-Dichlorobenzene	ND
	1,2-Dichlorobenzene	ND
	1,4-Dichlorobenzene	ND

CORPORATION

PAGE 8 Analytical Serv REPORT LAB # 85-01-053
RECEIVED: 01/15/85 Results by Sample Continued From Above

SAMPLE ID 1086 FRACTION 02B TEST CODE SW8010 NAME GC-HECD Halog. Vol. - SW846
Date & Time Collected 01/14/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

All results reported in ug/kg unless otherwise specified.

ND = not detected at detection limit of 1 ug/kg, unless otherwise specified.

CORPORATION

PAGE 9 Analytical Serv REPORT LAB # 85-01-053
RECEIVED: 01/15/85 Results by Sample

SAMPLE ID 10B6 FRACTION 02C TEST CODE SW8020 NAME GC-PID Arom. Vol. - SW846
Date & Time Collected 01/14/85 Category

DATA FILE D DATE INJECTED 01/17/85 ANALYST MCL VERIFIED BY JSG
CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT.
SCAN = scan number or retention time on chromatogram.
All results reported in ug/kg unless otherwise specified.
ND = not detected at detection limit of 1 ug/kg, unless otherwise specified.

CORPORATION

PAGE 1 Analytical Serv REPORT LAB # 85-01-057

RECEIVED: 01/17/85 02/22/85 16:57:13

REPORT TO: Radian
B1 4
Austin

ATTEN: Larry French

CLIENT: CARSWELL DOA SAMPLES 14
COMPANY: Carswell AFB
FACILITY:

PREPARED BY: Radian Analytical Services
8501 MoPac Blvd.
P O Box 9948
Austin, Texas 78766

ATTEN:
PHONE: (512) 454-4797

CERTIFIED BY

CONTACT CONOVER

WORK ID: site 13
TAKEN: JCM/PAW
TRANS TYPE: Fed Ex
P.O. #: 214-114-06-42
INVOICE: under separate cover

Footnotes and Comments

* Indicates a value less than 5 times the detection limit. Potential error for such low values ranges between 50 and 100%.

@ Indicates that spike recovery for this analysis on the specific matrix was not within acceptable limits indicating an interferent present.

SAMPLE IDENTIFICATION

01 850843
02 850844
03 850845
04 850846
05 850847
06 850848
07 850849
08 850850
09 850851
10 850852
11 850853
12 850854
13 850855
14 850857

Analytical Serv TEST CODES and NAMES used on this report

EP EXT RCRA Extraction Procedure
EP MET RCRA Metals
ONG IR Oil and Grease, Infrared
PREP W Special Digestion Method

CORPORATION

PAGE 2 Analytical Serv REPORT LAB # 85-01-057
RECEIVED: 01/17/85 RESULTS BY TEST

TEST CODE default units	Sample 01 (entered units)	Sample 02 (entered units)	Sample 03 (entered units)	Sample 04 (entered units)	Sample 05 (entered units)
EP_EXT date completed	01/24/85	01/24/85	01/24/85	01/24/85	01/24/85
ONG_IR mg/L	510 ug/g	<10 ug/g	<10 ug/g	<10 ug/g	<10 ug/g
PREP_W date complete	01/28/85	01/28/85	01/28/85	01/28/85	01/28/85

TEST CODE default units	Sample 06 (entered units)	Sample 07 (entered units)	Sample 08 (entered units)	Sample 09 (entered units)	Sample 10 (entered units)
EP_EXT date completed	01/24/85	01/23/85	01/23/85	01/23/85	01/23/85
ONG_IR mg/L	60 ug/g	<10 ug/g	<10 ug/g	650 ug/g	<10 ug/g
PREP_W date complete	01/28/85	01/28/85	01/28/85	01/28/85	01/28/85

TEST CODE default units	Sample 11 (entered units)	Sample 12 (entered units)	Sample 13 (entered units)	Sample 14 (entered units)
EP_EXT date completed	01/23/85	01/23/85	01/22/85	01/22/85
ONG_IR mg/L	<10 ug/g	<10 ug/g	<10 ug/g	<10 ug/g
PREP_W date complete	01/28/85	01/28/85	01/28/85	01/28/85

CORPORATION

PAGE 3 Analytical Serv REPORT LAB # 85-01-057
RECEIVED: 01/17/85 Results by Sample

SAMPLE ID 850843 FRACTION 01C TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 01/16/85 Category

DATE ANALYZED 02/18/85 VERIFIED BY DLH

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	<.002	AS	Arsenic	<.060
BA	Barium	1.1	HG	Mercury	0.0003
CD	Cadmium	<.002	PB	Lead	<.080
CR	Chromium	<.005	SE	Selenium	<.080

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/ml unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

CORPORATION

PAGE 4 Analytical Serv REPORT LAB # 85-01-057
RECEIVED: 01/17/85 Results by Sample

SAMPLE ID 850844 FRACTION 02C TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 01/16/85 Category

DATE ANALYZED 02/19/85 VERIFIED BY DLH

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	<.002	AS	Arsenic	<.060
BA	Barium	1.0	HG	Mercury	0.0007
CD	Cadmium	0.023	PB	Lead	<.080
CR	Chromium	0.006	SE	Selenium	<.080

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/ml unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

CORPORATION

PAGE 5 Analytical Serv REPORT LAB # 85-01-057

RECEIVED: 01/17/85 Results by Sample

SAMPLE ID 850845 FRACTION 03C TEST CODE EP MET NAME RCRA Metals

Date & Time Collected 01/16/85 Category

DATE ANALYZED 02/19/85 VERIFIED BY DLH

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	< .002	AS	Arsenic	< .060
BA	Barium	0.90	HG	Mercury	0.0040
CD	Cadmium	< .002	PB	Lead	< .080
CR	Chromium	0.007	SE	Selenium	< .080

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/ml unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

CORPORATION

PAGE 6 Analytical Serv REPORT LAB # 85-01-057
RECEIVED: 01/17/85 Results by Sample

SAMPLE ID 850846 FRACTION Q4C TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 01/16/85 Category

DATE ANALYZED 02/19/85 VERIFIED BY DLH

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	< .002	AS	Arsenic	< .060
BA	Barium	1.0	HG	Mercury	0.0003
CD	Cadmium	< .002	PB	Lead	< .080
CR	Chromium	< .005	SE	Selenium	< .080

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/ml unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

CORPORATION

PAGE 7 Analytical Serv REPORT LAB # 85-01-057
RECEIVED: 01/17/85 Results by Sample

SAMPLE ID 850847 FRACTION 05C TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 01/16/85 Category

DATE ANALYZED 02/19/85 VERIFIED BY DLH

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	< .002	AS	Arsenic	< .060
BA	Barium	0.91	HG	Mercury	0.0003
CD	Cadmium	< .002	PB	Lead	< .080
CR	Chromium	< .005	SE	Selenium	< .080

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/ml unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

CORPORATION

PAGE 8 Analytical Serv REPORT LAB # 85-01-057
RECEIVED: 01/17/85 Results by Sample

SAMPLE ID 850848 FRACTION 06C TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 01/16/85 Category

DATE ANALYZED 02/19/85 VERIFIED BY DLH

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	< .002	AS	Arsenic	< .060
BA	Barium	0.89	HG	Mercury	0.0003
CD	Cadmium	0.031	PB	Lead	< .080
CR	Chromium	< .005	SE	Selenium	< .080

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/ml unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

CORPORATION

PAGE 9 Analytical Serv REPORT LAB # 85-01-057
RECEIVED: 01/17/85 Results by Sample

SAMPLE ID 850849 FRACTION 07C TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 01/16/85 Category

DATE ANALYZED 02/19/85 VERIFIED BY DLH

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	< .002	AS	Arsenic	< .060
BA	Barium	0.86	HG	Mercury	0.0003
CD	Cadmium	< .002	PB	Lead	< .080
CR	Chromium	< .005	SE	Selenium	< .080

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/ml unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

CORPORATION

PAGE 10 Analytical Serv REPORT LAB # 85-01-057
RECEIVED: 01/17/85 Results by Sample

SAMPLE ID 850850 FRACTION 08C TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 01/16/85 Category

DATE ANALYZED 02/19/85 VERIFIED BY DLH

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	< .002	AS	Arsenic	< .060
BA	Barium	0.72	HG	Mercury	0.0016
CD	Cadmium	< .002	PB	Lead	< .080
CR	Chromium	< .005	SE	Selenium	< .080

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/ml unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

CORPORATION

PAGE 11 Analytical Serv REPORT LAB # 85-01-057
RECEIVED: 01/17/85 Results by Sample

SAMPLE ID 850851 FRACTION 09C TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 01/16/85 Category

DATE ANALYZED 02/19/85 VERIFIED BY DLH

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	< .002	AS	Arsenic	< .060
BA	Barium	1.1	HG	Mercury	0.0003
CD	Cadmium	< .002	PB	Lead	< .080
CR	Chromium	< .005	SE	Selenium	< .080

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/ml unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

CORPORATION

PAGE 12 Analytical Serv REPORT LAB # 85-01-057
RECEIVED: 01/17/85 Results by Sample

SAMPLE ID 850852 FRACTION 10C TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 01/16/85 Category

DATE ANALYZED 02/19/85 VERIFIED BY DLH

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	< .002	AS	Arsenic	< .060
BA	Barium	1.2	HG	Mercury	0.0004
CD	Cadmium	< .002	PB	Lead	< .080
CR	Chromium	< .005	SE	Selenium	< .080

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/ml unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

CORPORATION

PAGE 13 Analytical Serv REPORT LAB # 85-01-057
RECEIVED: 01/17/85 Results by Sample

SAMPLE ID 850853 FRACTION 11C TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 01/16/85 Category

DATE ANALYZED 02/19/85 VERIFIED BY DLH

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	0.005	AS	Arsenic	<.060
BA	Barium	0.78	HG	Mercury	0.0004
CD	Cadmium	<.002	PB	Lead	<.080
CR	Chromium	0.014	SE	Selenium	<.080

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/ml unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg

CORPORATION

PAGE 14 Analytical Serv REPORT LAB # 85-01-057
RECEIVED: 01/17/85 Results by Sample

SAMPLE ID 850854 FRACTION 12C TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 01/16/85 Category

DATE ANALYZED 02/19/85 VERIFIED BY DLH

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	< .002	AS	Arsenic	< .060
BA	Barium	0.66	HG	Mercury	< .0002
CD	Cadmium	< .002	PB	Lead	< .080
CR	Chromium	0.006	SE	Selenium	< .080

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/ml unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

CORPORATION

PAGE 15 Analytical Serv REPORT LAB # 85-01-057
RECEIVED: 01/17/85 Results by Sample

SAMPLE ID 850855 FRACTION 13C TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 01/16/85 Category

DATE ANALYZED 02/19/85 VERIFIED BY DLH

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	< .002	AS	Arsenic	< .060
BA	Barium	0.54	HG	Mercury	0.0011
CD	Cadmium	< .002	PB	Lead	< .080
CR	Chromium	< .005	SE	Selenium	< .080

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/ml unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

CORPORATION

PAGE 16 Analytical Serv REPORT LAB # 85-01-057
RECEIVED: 01/17/85 Results by Sample

SAMPLE ID 85085J FRACTION 14C TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 01/16/85 Category

DATE ANALYZED 02/19/85 VERIFIED BY DLH

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	< .002	AS	Arsenic	< .060
BA	Barium	0.45	HG	Mercury	0.0006
CD	Cadmium	< .002	PB	Lead	< .080
CR	Chromium	< .006	SE	Selenium	< .080

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/ml unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

CORPORATION

PAGE 1 Analytical Serv REPORT LAB # 85-01-058

RECEIVED: 01/17/85 01/31/85 11:41:38

REPORT TO: Radian
Bl. 4
Austin

ATTEN: Larry French

CLIENT: CARSWELL D06 SAMPLES: 3
COMPANY: Carswell AFB
FACILITY:

WORK ID: site 10
TAKEN: LNF
TRANS TYPE: Fed Ex
P.O. #: 214-114-06-42
INVOICE: under separate cover

PREPARED BY: Radian Analytical Services
8501 MoPac Blvd.
P.O. Box 9948
Austin, Texas 78766

ATTEN:
PHONE: (512) 454-4797

CERTIFIED BY

CONTACT CONOVER

Note: Detection limits for Methods 8010 and 8020 are 10 ug/kg and 250 ug/kg, respectively.

Footnotes and Comments

* Indicates a value less than 5 times the detection limit. Potential error for such low values ranges between 50 and 100%.

@ Indicates that spike recovery for this analysis on the specific matrix was not within acceptable limits indicating an interferent present.

SAMPLE IDENTIFICATION

01 10A6
02 10C5
03 10C6

Analytical Serv TEST CODES and NAMES used on this report

ONG IR	Oil and Grease, Infrared
PREP W	Special Digestion Method
SW8010	GC-HECD Halog. Vol. - SW846
SW8020	GC-PID Arom. Vol. - SW846

CORPORATION

PAGE 2 Analytical Serv REPORT LAB # 85-01-058

RECEIVED: 01/17/85 Results by Sample

SAMPLE ID 10A6 SAMPLE # 01 FRACTIONS: A, B, C, D

Date & Time Collected 01/16/85 Category

ONG_IR <10 ug/g PREP_W 01/22/85 date complete

CORPORATION

PAGE 3 Analytical Serv REPORT LAB # 85-01-058
RECEIVED: 01/17/85 Results by Sample

SAMPLE ID 10A6 FRACTION 01D TEST CODE SW8010 NAME GC-HECD Haloq. Vol. - SW846
Date & Time Collected 01/16/85 Category

DATA FILE A DATE INJECTED 01/21/85 ANALYST MCL VERIFIED BY JSG
CONC. FACTOR INSTRUMENT a COMPOUNDS DETECTED 1

SCAN	COMPOUND	RESULT
	Chloromethane	ND
	Bromomethane	ND
	Vinyl Chloride	ND
	Chloroethane	ND
	Methylene Chloride	ND
	Trichlorofluoromethane	ND
	1,1-Dichloroethene	ND
	1,1-Dichloroethane	ND
	trans-1,2-Dichloroethene	ND
	Chloroform	ND
	1,2-Dichloroethane	ND
	1,1,1-Trichloroethane	ND
	Carbon Tetrachloride	ND
	Bromodichloromethane	ND
	1,2-Dichloropropane	ND
	trans-1,3-Dichloropropene	ND

SCAN	COMPOUND	RESULT
1	Trichloroethene	41
	Dibromochloromethane	ND
	1,1,2-Trichloroethane	ND
	cis-1,3-Dichloropropene	ND
	2-Chloroethylvinyl Ether	ND
	Bromoform	ND
	1,1,2,2-Tetrachloroethane	ND
	Tetrachloroethylene	ND
	Chlorobenzene	ND
	1,3-Dichlorobenzene	ND
	1,2-Dichlorobenzene	ND
	1,4-Dichlorobenzene	ND

CORPORATION

PAGE 4 Analytical Serv REPORT LAB # 85-01-058
RECEIVED: 01/17/85 Results by Sample Continued From Above

SAMPLE ID 10A6 FRACTION 01D TEST CODE SW8010 NAME GC-HECD Halog. Vol. - SW846
Date & Time Collected 01/16/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

All results reported in ug/kg unless otherwise specified.

ND = not detected at detection limit of 1 ug/kg, unless otherwise specified.

CORPORATION

PAGE 5 Analytical Serv REPORT LAB # 85-01-058
RECEIVED: 01/17/85 Results by Sample

SAMPLE ID 10A6 FRACTION 01D TEST CODE SW8020 NAME GC-PID Arom. Vol.- SW846
Date & Time Collected 01/16/85 Category

DATA FILE D DATE INJECTED 01/18/85 ANALYST MCL VERIFIED BY JSG
CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT.
SCAN = scan number or retention time on chromatogram.
All results reported in ug/kg unless otherwise specified.
ND = not detected at detection limit of 1 ug/kg, unless otherwise specified.

CORPORATION

PAGE 6 Analytical Serv REPORT LAB # 85-01-058
RECEIVED: 01/17/85 Results by Sample

SAMPLE ID 10C5 SAMPLE # 02 FRACTIONS: A, B
Date & Time Collected 01/15/85 Category

ONG_IR <10 ug/g PREP_W 01/22/85 date complete

CORPORATION

PAGE 7 Analytical Serv REPORT LAB # 85-01-058
RECEIVED: 01/17/85 Results by Sample

SAMPLE ID 10C5 FRACTION 02B TEST CODE SW8010 NAME GC-HECD Haloq. Vol. - SW846
Date & Time Collected 01/15/85 Ca gory

DATA FILE A DATE INJECTED 01/21/85 ANALYST MCL VERIFIED BY JSG
CONC. FACTOR INSTRUMENT a COMPOUNDS DETECTED 1

SCAN	COMPOUND	RESULT
	Chloromethane	ND
	Bromomethane	ND
	Vinyl Chloride	ND
	Chloroethane	ND
	Methylene Chloride	ND
	Trichlorofluoromethane	ND
	1,1-Dichloroethene	ND
	1,1-Dichloroethane	ND
	trans-1,2-Dichloroethene	ND
	Chloroform	ND
	1,2-Dichloroethane	ND
	1,1,1-Trichloroethane	ND
	Carbon Tetrachloride	ND
	Bromodichloromethane	ND
	1,2-Dichloropropane	ND
	trans-1,3-Dichloropropene	ND

SCAN	COMPOUND	RESULT
1	Trichloroethene	15
	Dibromochloromethane	ND
	1,1,2-Trichloroethane	ND
	cis-1,3-Dichloropropene	ND
	2-Chloroethylvinyl Ether	ND
	Bromoform	ND
	1,1,2,2-Tetrachloroethane	ND
	Tetrachloroethylene	ND
	Chlorobenzene	ND
	1,3-Dichlorobenzene	ND
	1,2-Dichlorobenzene	ND
	1,4-Dichlorobenzene	ND

CORPORATION

PAGE 8 Analytical Serv REPORT LAB # 85-01-058
RECEIVED: 01/17/85 Results by Sample Continued From Above

SAMPLE ID 10C5 FRACTION 02B TEST CODE SW8010 NAME GC-HECD Halog. Vol. - SW846
Date & Time Collected 01/15/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

All results reported in ug/kg unless otherwise specified.

ND = not detected at detection limit of 1 ug/kg, unless otherwise specified.

CORPORATION

PAGE 9 Analytical Serv REPORT LAB # 85-01-058
RECEIVED: 01/17/85 Results by Sample

SAMPLE ID 10C5 FRACTION 02B TEST CODE SW8020 NAME GC-PID Arom. Vol.- SW846
Date & Time Collected 01/15/85 Category

DATA FILE D DATE INJECTED 01/18/85 ANALYST MCL VERIFIED BY JSG
CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT.
SCAN = scan number or retention time on chromatogram.
All results reported in ug/kg unless otherwise specified.
ND = not detected at detection limit of 1 ug/kg, unless otherwise specified.

CORPORATION

PAGE 10 Analytical Serv REPORT LAB # 85-01-058
RECEIVED: 01/17/85 Results by Sample

SAMPLE ID 10C6 SAMPLE # 03 FRACTIONS: A, B
Date & Time Collected 01/15/85 Category

ONG_IR <10 ug/g PREP_W 01/22/85 date complete

CORPORATION

PAGE 11 Analytical Serv REPORT LAB # 85-01-058
RECEIVED: 01/17/85 Results by Sample

SAMPLE ID 10C6 FRACTION 03B TEST CODE SW8010 NAME GC-HECD Haloq. Vol. - SW846
Date & Time Collected 01/15/85 Category

DATA FILE A DATE INJECTED 01/21/85 ANALYST MCL VERIFIED BY JSG
CONC. FACTOR INSTRUMENT a COMPOUNDS DETECTED 1

SCAN	COMPOUND	RESULT
	Chloromethane	ND
	Bromomethane	ND
	Vinyl Chloride	ND
	Chloroethane	ND
	Methylene Chloride	ND
	Trichlorofluoromethane	ND
	1,1-Dichloroethene	ND
	1,1-Dichloroethane	ND
	trans-1,2-Dichloroethene	ND
	Chloroform	ND
	1,2-Dichloroethane	ND
	1,1,1-Trichloroethane	ND
	Carbon Tetrachloride	ND
	Bromodichloromethane	ND
	1,2-Dichloropropane	ND
	trans-1,3-Dichloropropene	ND

SCAN	COMPOUND	RESULT
1	Trichloroethene	21
	Dibromochloromethane	ND
	1,1,2-Trichloroethane	ND
	cis-1,3-Dichloropropene	ND
	2-Chloroethylvinyl Ether	ND
	Bromoform	ND
	1,1,2,2-Tetrachloroethane	ND
	Tetrachloroethylene	ND
	Chlorobenzene	ND
	1,3-Dichlorobenzene	ND
	1,2-Dichlorobenzene	ND
	1,4-Dichlorobenzene	ND

CORPORATION

PAGE 12 Analytical Serv REPORT LAB # 85-01-058
RECEIVED: 01/17/85 Results by Sample Continued From Above

SAMPLE ID 10C6 FRACTION 03B TEST CODE SW8010 NAME GC-HECD Haloq. Vol. - SW846
Date & Time Collected 01/15/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

All results reported in ug/kg unless otherwise specified.

ND = not detected at detection limit of 1 ug/kg, unless otherwise specified.

CORPORATION

PAGE 13 Analytical Serv REPORT LAB # 85-01-058
RECEIVED: 01/17/85 Results by Sample

SAMPLE ID 10C6 FRACTION 03B TEST CODE SW8020 NAME GC-PID Arom. Vol. - SW846
Date & Time Collected 01/15/85 Category

DATA FILE D DATE INJECTED 01/18/85 ANALYST MCL VERIFIED BY JSG
CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT.
SCAN = scan number or retention time on chromatogram.
All results reported in ug/kg unless otherwise specified.
ND = not detected at detection limit of 1 ug/kg, unless otherwise specified.

FRACTION AND TEST CODES FOR WORK NOT REPORTED ELSEWHERE

01B : DUP_NS 01C : DUP_NS

CORPORATION

PAGE 1 Analytical Serv REPORT LAB # 85-01-059

RECEIVED: 01/16/85 02/20/85 09:23:47

REPORT TO: Radian
Bl. 4
Austin

ATTEN: Larry French

CLIENT: CARSWELL D06 SAMPLES: 1
COMPANY: Carswell AFB
FACILITY:

PREPARED BY: Radian Analytical Services
8501 MoPac Blvd.
P.O. Box 9948
Austin, Texas 78766

ATTEN:
PHONE: (512) 454-4797

CERTIFIED BY

CONTACT CONOVER

WORK ID: site 4
TAKEN: LNF
TRANS: Fed Ex
TYPE:
P.O. #: 214-114-06-42
INVOICE: under separate cover

Footnotes and Comments

* Indicates a value less than 5 times the detection limit. Potential error for such low values ranges between 50 and 100%.

@ Indicates that spike recovery for this analysis on the specific matrix was not within acceptable limits indicating an interferent present.

SAMPLE IDENTIFICATION

01 4D6

Analytical Serv TEST CODES and NAMES used on this report

EP MET	RCRA Metals
PHEN A	Total Phenolics
PREP W	Special Digestion Method
PREP X	Special Digestion Method

CORPORATION

PAGE 2 Analytical Serv REPORT LAB # 85-01-059

RECEIVED: 01/16/85 RESULTS BY TEST

TEST CODE default units	Sample 01 (entered units)
PHEN_A mg/L	< .15 ug/g
PREP_W date complete	01/23/85
PREP_X date complete	02/13/85

CORPORATION

PAGE 3 Analytical Serv REPORT LAB # 85-01-059
RECEIVED: 01/16/85 Results by Sample

SAMPLE ID 4D6 FRACTION 01A TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 01/11/85 Category

DATE ANALYZED 02/19/85 VERIFIED BY DLH

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	<.19	AS	Arsenic	<5.7
BA	Barium	6.2	HG	Mercury	<.04
CD	Cadmium	<.19	PB	Lead	<7.6
CR	Chromium	2.5	SE	Selenium	<7.6

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/g unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

CORPORATION

PAGE 1 Analytical Serv REPORT LAB # 85-01-068

RECEIVED: 01/16/85 02/22/85 17:04:04

REPORT TO: Radian
B1 4
Austin

ATTEN: Larry French

CLIENT: CARSWELL D06 SAMPLES: 8
COMPANY: Carswell AFB
FACILITY:

PREPARED BY: Radian Analytical Services
8501 MoPac Blvd
P.O. Box 9948
Austin, Texas 78766

ATTEN:
PHONE: (512) 454-4797

CERTIFIED BY

CONTACT: CONOVER

WORK ID: site 13
TAKEN: JLM/PAW
TRANS: Fed Ex
TYPE:
P.O. #: 214-114-06-42
INVOICE: under separate cover

Footnotes and Comments

* Indicates a value less than 5 times the detection limit. Potential error for such low values ranges between 50 and 100%.

@ Indicates that spike recovery for this analysis on the specific matrix was not within acceptable limits indicating an interferent present.

SAMPLE IDENTIFICATION

01 13E 0' 850830
02 13F 0' 850831
03 13F 2' 850832
04 13F 4' 850833
05 13F 6' 850834
06 13F 8' 850835
07 13 H 850820
08 13G 850819

Analytical Serv TEST CODES and NAMES used on this report

EP EXT RCRA Extraction Procedure
EP MET RCRA Metals
ONG IR Oil and Grease, Infrared
PREP W Special Digestion Method

CORPORATION

Analytical Serv REPORT LAB # 85-01-068

RECEIVED: 01/16/85

RESULTS BY TEST

TEST CODE default units	Sample 01 (entered units)	Sample 02 (entered units)	Sample 03 (entered units)	Sample 04 (entered units)	Sample 05 (entered units)
ONG_IR mg/L	80 ug/g	30 ug/g	1300 ug/g	2000 ug/g	160 ug/g
PREP_W date complete	01/22/85	01/22/85	01/22/85	01/22/85	01/22/85

TEST CODE default units	Sample 06 (entered units)	Sample 07 (entered units)	Sample 08 (entered units)
EP_EXT date completed			01/22/85
ONG_IR mg/L	1400 ug/g	270 ug/g	<10 ug/g
PREP_W date complete	01/22/85	01/22/85	01/22/85

CORPORATION

PAGE 3 Analytical Serv REPORT LAB # 85-01-068
RECEIVED: 01/16/85 Results by Sample

SAMPLE ID 13G 850819 FRACTION 08C TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 01/15/85 Category

DATE ANALYZED 02/18/85 VERIFIED BY DLH

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	< .002	AS	Arsenic	< .060
BA	Barium	0.38	HG	Mercury	0.0006
CD	Cadmium	< .002	PB	Lead	< .080
CR	Chromium	< .005	SE	Selenium	< .080

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/ml unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

CORPORATION

PAGE 1 Analytical Serv REPORT LAB # 85-01-069

RECEIVED: 01/18/85 02/22/85 17:05:47

REPORT TO: Radian
Bl 4
Austin

ATTEN: Larry French

CLIENT: CARSWELL DOA SAMPLES: 2
COMPANY: Carswell AFB
FACILITY:

PREPARED BY: Radian Analytical Services
8501 MoPac Blvd
P O Box 9948
Austin, Texas 78766

ATTEN:
PHONE: (512) 454-4797

CERTIFIED BY

CONTACT CONOVER

WORK ID: site 13
TAKEN: JLM/PAW
TRANS: Fed Ex
TYPE:
P O #: 214-114-06-42
INVOICE: under separate cover

Footnotes and Comments

* Indicates a value less than 5 times the detection limit. Potential error for such low values ranges between 50 and 100%.

@ Indicates that spike recovery for this analysis on the specific matrix was not within acceptable limits indicating an interferent present.

SAMPLE IDENTIFICATION

01 13F 0'
02 13F 2'

Analytical Serv TEST CODES and NAMES used on this report

EP EXT RCRA Extraction Procedure
EP MET RCRA Metals
ONG IR Oil and Grease, Infrared
PREP W Special Digestion Method

CORPORATION

PAGE 2 Analytical Serv REPORT LAB # 85-01-069

RECEIVED: 01/18/85 RESULTS BY TEST

TEST CODE default units	Sample 01 (entered units)	Sample 02 (entered units)
EP_EXT date completed	01/22/85	01/22/85
ONG_IR mg/L	<10 ug/g	50 ug/g
PREP_W date complete	01/22/85	01/22/85

CORPORATION

PAGE 3 Analytical Serv REPORT LAB # 85-01-069
RECEIVED: 01/18/85 Results by Sample

SAMPLE ID 13F 0' FRACTION 01C TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 01/17/85 Category

DATE ANALYZED 02/18/85 VERIFIED BY DLH

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	< .002	AS	Arsenic	< .060
BA	Barium	0.99	HG	Mercury	0.0016
CD	Cadmium	0.030	PB	Lead	< .080
CR	Chromium	< .005	SE	Selenium	< .080

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/ml unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

CORPORATION

PAGE 4 Analytical Serv REPORT LAB # 85-01-069

RECEIVED: 01/18/85 Results by Sample

SAMPLE ID 13F 2' FRACTION 02C TEST CODE EP MET NAME RCRA Metals

Date & Time Collected 01/17/85 Category

DATE ANALYZED 02/18/85 VERIFIED BY DLH

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	< 0.02	AS	Arsenic	< 0.060
BA	Barium	0.94	HG	Mercury	0.0004
CD	Cadmium	< 0.02	PB	Lead	< 0.080
CR	Chromium	< 0.05	SE	Selenium	< 0.080

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/ml unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit
All elements determined by ICPES except Hg

CORPORATION

PAGE 1 Analytical Serv REPORT LAB # 85-01-070

RECEIVED: 01/18/85 02/20/85 09:24:56

REPORT TO: Radian
Bl. 4
Austin

ATTEN: Larry French

CLIENT: CARSWELL DO6 SAMPLES: 6
COMPANY: Carswell AFB
FACILITY:

WORK ID: site 12
TAKEN: LNF
TRANS TYPE: Fed Ex
P.O. #: 214-114-06-42
INVOICE: under separate cover

PREPARED BY: Radian Analytical Services
8501 MoPac Blvd.
P.O. Box 9948
Austin, Texas 78766

ATTEN:
PHONE: (512) 454-4797

CERTIFIED BY

CONTACT: CONOVER

Note: Detection limits for Methods 8010 and 8020 are 10 ug/kg and 250 ug/kg, respectively.

Footnotes and Comments

* Indicates a value less than 5 times the detection limit. Potential error for such low values ranges between 50 and 100%.

@ Indicates that spike recovery for this analysis on the specific matrix was not within acceptable limits indicating an interferent present.

SAMPLE IDENTIFICATION

01	12A4
02	12A4 QC
03	12B2
04	12B3
05	12B7
06	12C5

Analytical Serv TEST CODES and NAMES used on this report

EP MET	RCRA Metals
ONG IR	Oil and Grease, Infrared
PHEN A	Total Phenolics
PREP W	Special Digestion Method
PREP X	Special Digestion Method
SW8010	GC-HECD Halog. Vol. - SW846
SW8020	GC-PID Arom. Vol. - SW846

CORPORATION

PAGE 2 Analytical Serv REPORT LAB # 85-01-070

RECEIVED: 01/18/85 RESULTS BY TEST

TEST CODE default units	Sample 01 (entered units)	Sample 02 (entered units)	Sample 03 (entered units)	Sample 04 (entered units)	Sample 05 (entered units)
ONG_IR mg/L	<10 ug/g	<10 ug/g	<10 ug/g	700 ug/g	<10 ug/g
PHEN_A mg/L	<.1 ug/g	<.1 ug/g	<.1 ug/g	<.1 ug/g	<.1 ug/g
PREP_W date complete	01/23/85	01/23/85	01/23/85	01/23/85	01/23/85
PREP_X date complete	02/13/85	02/13/85	02/13/85	02/13/85	02/13/85

TEST CODE default units	Sample 06 (entered units)
ONG_IR mg/L	<10 ug/g
PHEN_A mg/L	<.1 ug/g
PREP_W date complete	01/23/85
PREP_X date complete	02/13/85

CORPORATION

PAGE 3 Analytical Serv REPORT LAB # 85-01-070
RECEIVED: 01/18/85 Results by Sample

SAMPLE ID 12A4 FRACTION 01A TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 01/17/85 Category

DATE ANALYZED 02/19/85 VERIFIED BY DLH

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	0.69	AS	Arsenic	<5.9
BA	Barium	26	HG	Mercury	<.04
CD	Cadmium	<.19	PB	Lead	9.6
CR	Chromium	4.6	SE	Selenium	<7.8

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/g unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

CORPORATION

PAGE 4 Analytical Serv REPORT LAB # 85-01-070
RECEIVED: 01/18/85 Results by Sample

SAMPLE ID 12A4 FRACTION 01B TEST CODE SW8010 NAME GC-HECD Haloq. Vol. - SW846
Date & Time Collected 01/17/85 Category

DATA FILE A DATE INJECTED 01/21/85 ANALYST MCL VERIFIED BY JSG
CONC. FACTOR INSTRUMENT a COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT
	Chloromethane	ND
	Bromomethane	ND
	Vinyl Chloride	ND
	Chloroethane	ND
	Methylene Chloride	ND
	Trichlorofluoromethane	ND
	1,1-Dichloroethene	ND
	1,1-Dichloroethane	ND
	trans-1,2-Dichloroethene	ND
	Chloroform	ND
	1,2-Dichloroethane	ND
	1,1,1-Trichloroethane	ND
	Carbon Tetrachloride	ND
	Bromodichloromethane	ND
	1,2-Dichloropropane	ND
	trans-1,3-Dichloropropene	ND

SCAN	COMPOUND	RESULT
	Trichloroethene	ND
	Dibromochloromethane	ND
	1,1,2-Trichloroethane	ND
	cis-1,3-Dichloropropene	ND
	2-Chloroethylvinyl Ether	ND
	Bromoform	ND
	1,1,2,2-Tetrachloroethane	ND
	Tetrachloroethylene	ND
	Chlorobenzene	ND
	1,3-Dichlorobenzene	ND
	1,2-Dichlorobenzene	ND
	1,4-Dichlorobenzene	ND

CORPORATION

PAGE 5 Analytical Serv REPORT LAB # 85-01-070
RECEIVED: 01/18/85 Results by Sample Continued From Above

SAMPLE ID 12A4 FRACTION 01B TEST CODL SW8010 NAME GC-HECD Halog. Vol. - SW846
Date & Time Collected 01/17/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

All results reported in ug/kg unless otherwise specified.

ND = not detected at detection limit of 1 ug/kg, unless otherwise specified.

CORPORATION

PAGE 6 Analytical Serv REPORT LAB # 85-01-070
RECEIVED: 01/18/85 Results by Sample

SAMPLE ID 12A4 FRACTION 01B TEST CODE SW8020 NAME GC-PID Arom. Vol. - SW846
Date & Time Collected 01/17/85 Category

DATA FILE D DATE INJECTED 01/18/85 ANALYST RAA VERIFIED BY JSG
CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT.
SCAN = scan number or retention time on chromatogram.
All results reported in ug/kg unless otherwise specified
ND = not detected at detection limit of 1 ug/kg, unless otherwise specified.

CORPORATION

PAGE 7 Analytical Serv REPORT LAB # 85-01-070
RECEIVED: 01/18/85 Results by Sample

SAMPLE ID 12A4 QC FRACTION 02A TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 01/17/85 Category

DATE ANALYZED 02/19/85 VERIFIED BY DLH

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	0.56	AS	Arsenic	<5.5
BA	Barium	30	HG	Mercury	<.04
CD	Cadmium	0.37	PB	Lead	8.2
CR	Chromium	4.6	SE	Selenium	9.3

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/g unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

CORPORATION

PAGE 8 Analytical Serv REPORT LAB # 85-01-070
RECEIVED: 01/18/85 Results by Sample

SAMPLE ID 12A4 QC FRACTION 02B TEST CODE SW8010 NAME GC-HECD Haloq. Vol. - SW846
Date & Time Collected 01/17/85 Category

DATA FILE A DATE INJECTED 01/21/85 ANALYST RAA VERIFIED BY JSG
CONC. FACTOR INSTRUMENT a COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Chloromethane	ND		Trichloroethene	ND
	Bromomethane	ND		Dibromochloromethane	ND
	Vinyl Chloride	ND		1,1,2-Trichloroethane	ND
	Chloroethane	ND		cis-1,3-Dichloropropene	ND
	Methylene Chloride	ND		2-Chloroethylvinyl Ether	ND
	Trichlorofluoromethane	ND		Bromoform	ND
	1,1-Dichloroethene	ND		1,1,2,2-Tetrachloroethane	ND
	1,1-Dichloroethane	ND		Tetrachloroethylene	ND
	trans-1,2-Dichloroethene	ND		Chlorobenzene	ND
	Chloroform	ND		1,3-Dichlorobenzene	ND
	1,2-Dichloroethane	ND		1,2-Dichlorobenzene	ND
	1,1,1-Trichloroethane	ND		1,4-Dichlorobenzene	ND
	Carbon Tetrachloride	ND			
	Bromodichloromethane	ND			
	1,2-Dichloropropane	ND			
	trans-1,3-Dichloropropene	ND			

CORPORATION

PAGE 9 Analytical Serv REPORT LAB # 85-01-070
RECEIVED: 01/18/85 Results by Sample Continued From Above

SAMPLE ID 12A4 QC FRACTION 02B TEST CODE SW8010 NAME GC-HECD Haloq. Vol. - SW846
Date & Time Collected 01/17/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

All results reported in ug/kg unless otherwise specified.

ND = not detected at detection limit of 1 ug/kg, unless otherwise specified.

CORPORATION

PAGE 10 Analytical Serv REPORT LAB # 85-01-070
RECEIVED: 01/18/85 Results by Sample

SAMPLE ID 12A4 QC FRACTION 02B TEST CODE SW8020 NAME GC-PID Arom. Vol. - SW846
Date & Time Collected 01/17/85 Category

DATA FILE D DATE INJECTED 01/18/85 ANALYST RAA VERIFIED BY JSG
CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT.
SCAN = scan number or retention time on chromatogram.
All results reported in ug/kg unless otherwise specified.
ND = not detected at detection limit of 1 ug/kg, unless otherwise specified.

CORPORATION

PAGE 11 Analytical Serv REPORT LAB # 85-01-070
RECEIVED: 01/18/85 Results by Sample

SAMPLE ID 12B2 FRACTION 03A TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 01/17/85 Category

DATE ANALYZED 02/19/85 VERIFIED BY DLH

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	0.63	AS	Arsenic	<5.0
BA	Barium	38	HG	Mercury	<.04
CD	Cadmium	0.53	PB	Lead	13
CR	Chromium	5.3	SE	Selenium	15

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/g unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

CORPORATION

PAGE 12 Analytical Serv REPORT LAB # 85-01-070
RECEIVED: 01/18/85 Results by Sample

SAMPLE ID 1282 FRACTION 03B TEST CODE SW8010 NAME GC-HECD Haloq. Vol. - SW846
Date & Time Collected 01/17/85 Category

DATA FILE A DATE INJECTED 01/21/85 ANALYST RAA VERIFIED BY JSG
CONC. FACTOR INSTRUMENT a COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Chloromethane	ND		Trichloroethene	ND
	Bromomethane	ND		Dibromochloromethane	ND
	Vinyl Chloride	ND		1,1,2-Trichloroethane	ND
	Chloroethane	ND		cis-1,3-Dichloropropene	ND
	Methylene Chloride	ND		2-Chloroethylvinyl Ether	ND
	Trichlorofluoromethane	ND		Bromoform	ND
	1,1-Dichloroethene	ND		1,1,2,2-Tetrachloroethane	ND
	1,1-Dichloroethane	ND		Tetrachloroethylene	ND
	trans-1,2-Dichloroethene	ND		Chlorobenzene	ND
	Chloroform	ND		1,3-Dichlorobenzene	ND
	1,2-Dichloroethane	ND		1,2-Dichlorobenzene	ND
	1,1,1-Trichloroethane	ND		1,4-Dichlorobenzene	ND
	Carbon Tetrachloride	ND			
	Bromodichloromethane	ND			
	1,2-Dichloropropane	ND			
	trans-1,3-Dichloropropene	ND			

CORPORATION

PAGE 13 Analytical Serv REPORT LAB # 85-01-070
RECEIVED: 01/18/85 Results by Sample Continued From Above

SAMPLE ID 12B2 FRACTION 03B TEST CODE SW8010 NAME GC-HECD Haloq. Vol.- SW846
Date & Time Collected 01/17/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

All results reported in ug/kg unless otherwise specified.

ND = not detected at detection limit of 1 ug/kg, unless otherwise specified.

CORPORATION

PAGE 14 Analytical Serv REPORT LAB # 85-01-070
RECEIVED: 01/18/85 Results by Sample

SAMPLE ID 12B2 FRACTION 03C TEST CODE SW8020 NAME GC-PID Arom. Vol. - SW846
Date & Time Collected 01/17/85 Category

DATA FILE D DATE INJECTED 01/18/85 ANALYST RAA VERIFIED BY JSG
CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT.
SCAN = scan number or retention time on chromatogram.
All results reported in ug/kg unless otherwise specified.
ND = not detected at detection limit of 1 ug/kg, unless otherwise specified.

CORPORATION

PAGE 15 Analytical Serv REPORT LAB # 85-01-070

RECEIVED: 01/18/85 Results by Sample

SAMPLE ID 12B3 FRACTION 04A TEST CODE EP MET NAME RCRA Metals

Date & Time Collected 01/17/85 Category

DATE ANALYZED 02/19/85 VERIFIED BY DLH

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	0.81	AS	Arsenic	<5.5
BA	Barium	2.4	HG	Mercury	<.04
CD	Cadmium	<.18	PB	Lead	<7.3
CR	Chromium	1.4	SE	Selenium	<7.3

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/g unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

CORPORATION

PAGE 16 Analytical Serv REPORT LAB # 85-01-070
RECEIVED: 01/18/85 Results by Sample

SAMPLE ID 12B3 FRACTION Q4B TEST CODE SW8010 NAME GC-HECD Haloq. Vol. - SW846
Date & Time Collected 01/17/85 Category

DATA FILE A DATE INJECTED 01/21/85 ANALYST RAA VERIFIED BY JSG
CONC. FACTOR INSTRUMENT a COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Chloromethane	ND		Trichloroethene	ND
	Bromomethane	ND		Dibromochloromethane	ND
	Vinyl Chloride	ND		1,1,2-Trichloroethane	ND
	Chloroethane	ND		cis-1,3-Dichloropropene	ND
	Methylene Chloride	ND		2-Chloroethylvinyl Ether	ND
	Trichlorofluoromethane	ND		Bromoform	ND
	1,1-Dichloroethene	ND		1,1,2,2-Tetrachloroethane	ND
	1,1-Dichloroethane	ND		Tetrachloroethylene	ND
	trans-1,2-Dichloroethene	ND		Chlorobenzene	ND
	Chloroform	ND		1,3-Dichlorobenzene	ND
	1,2-Dichloroethane	ND		1,2-Dichlorobenzene	ND
	1,1,1-Trichloroethane	ND		1,4-Dichlorobenzene	ND
	Carbon Tetrachloride	ND			
	Bromodichloromethane	ND			
	1,2-Dichloropropane	ND			
	trans-1,3-Dichloropropene	ND			

CORPORATION

PAGE 17 Analytical Serv REPORT LAB # 85-01-070
RECEIVED: 01/18/85 Results by Sample Continued From Above

SAMPLE ID 12B3 FRACTION 04B TEST CODE SW8010 NAME GC-HECD Halog. Vol. - SW846
Date & Time Collected 01/17/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

All results reported in ug/kg unless otherwise specified.

ND = not detected at detection limit of 1 ug/kg, unless otherwise specified.

CORPORATION

PAGE 18 Analytical Serv REPORT LAB # 85-01-070
RECEIVED: 01/18/85 Results by Sample

SAMPLE ID 12B3 FRACTION 04C TEST CODE SW8020 NAME GC-PID Arom. Vol. - SW846
Date & Time Collected 01/17/85 Category

DATA FILE D DATE INJECTED 01/18/85 ANALYST RAA VERIFIED BY JSG
CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 2

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
1	Toluene	1400		1,2-Dichlorobenzene	ND
2	Ethyl Benzene	2900		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT.
SCAN = scan number or retention time on chromatogram.
All results reported in ug/kg unless otherwise specified.
ND = not detected at detection limit of 1 ug/kg, unless otherwise specified.

CORPORATION

PAGE 19 Analytical Serv REPORT LAB # 85-01-070
RECEIVED: 01/18/85 Results by Sample

SAMPLE ID 12B7 FRACTION 05A TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 01/17/85 Category

DATE ANALYZED 02/19/85 VERIFIED BY DLH

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	<.16	AS	Arsenic	<4.8
BA	Barium	4.4	HG	Mercury	<.04
CD	Cadmium	<.16	PB	Lead	<6.4
CR	Chromium	0.84	SE	Selenium	<6.4

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/g unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

CORPORATION

PAGE 20 Analytical Serv REPORT LAB # 85-01-070
RECEIVED: 01/18/85 Results by Sample

SAMPLE ID 12B7 FRACTION 05B TEST CODE SW8010 NAME GC-HECD Haloq. Vol. - SW846
Date & Time Collected 01/17/85 Category

DATA FILE A DATE INJECTED 01/21/85 ANALYST RAA VERIFIED BY JSG
CONC. FACTOR INSTRUMENT a COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Chloromethane	ND		Trichloroethene	ND
	Bromomethane	ND		Dibromochloromethane	ND
	Vinyl Chloride	ND		1,1,2-Trichloroethane	ND
	Chloroethane	ND		cis-1,3-Dichloropropene	ND
	Methylene Chloride	ND		2-Chloroethylvinyl Ether	ND
	Trichlorofluoromethane	ND		Bromoform	ND
	1,1-Dichloroethene	ND		1,1,2,2-Tetrachloroethane	ND
	1,1-Dichloroethane	ND		Tetrachloroethylene	ND
	trans-1,2-Dichloroethene	ND		Chlorobenzene	ND
	Chloroform	ND		1,3-Dichlorobenzene	ND
	1,2-Dichloroethane	ND		1,2-Dichlorobenzene	ND
	1,1,1-Trichloroethane	ND		1,4-Dichlorobenzene	ND
	Carbon Tetrachloride	ND			
	Bromodichloromethane	ND			
	1,2-Dichloropropane	ND			
	trans-1,3-Dichloropropene	ND			

CORPORATION

PAGE 21 Analytical Serv REPORT LAB # 85-01-070
RECEIVED: 01/18/85 Results by Sample Continued From Above

SAMPLE ID 12B7 FRACTION 05B TEST CODE SW8010 NAME GC-HECD Haloq. Vol. - SW846
Date & Time Collected 01/17/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

All results reported in ug/kg unless otherwise specified.

ND = not detected at detection limit of 1 ug/kg, unless otherwise specified.

CORPORATION

PAGE 22 Analytical Serv REPORT LAB # 85-01-070
RECEIVED: 01/18/85 Results by Sample

SAMPLE ID 12B7 FRACTION 05C TEST CODE SW8020 NAME GC-PID Arom. Vol. - SW846
Date & Time Collected 01/17/85 Category

DATA FILE D DATE INJECTED 01/21/85 ANALYST MCL VERIFIED BY JSG
CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT.
SCAN = scan number or retention time on chromatogram.
All results reported in ug/kg unless otherwise specified.
ND = not detected at detection limit of 1 ug/kg, unless otherwise specified.

CORPORATION

PAGE 23 Analytical Serv REPORT LAB # 85-01-070
RECEIVED: 01/18/85 Results by Sample

SAMPLE ID 12C5 FRACTION 06A TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 01/17/85 Category

DATE ANALYZED 02/19/85 VERIFIED BY DLH

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	<.17	AS	Arsenic	<5.2
BA	Barium	7.5	HG	Mercury	<.04
CD	Cadmium	<.17	PB	Lead	<7.0
CR	Chromium	2.5	SE	Selenium	<7.0

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/g unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

CORPORATION

PAGE 24 Analytical Serv REPORT LAB # 85-01-070
RECEIVED: 01/18/85 Results by Sample

SAMPLE ID 12C5 FRACTION 06B TEST CODE SW8010 NAME GC-HECD Haloq. Vol. - SW846
Date & Time Collected 01/17/85 Category

DATA FILE A DATE INJECTED 01/21/85 ANALYST RAA VERIFIED BY JSG
CONC. FACTOR INSTRUMENT a COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Chloromethane	ND		Trichloroethene	ND
	Bromomethane	ND		Dibromochloromethane	ND
	Vinyl Chloride	ND		1,1,2-Trichloroethane	ND
	Chloroethane	ND		cis-1,3-Dichloropropene	ND
	Methylene Chloride	ND		2-Chloroethylvinyl Ether	ND
	Trichlorofluoromethane	ND		Bromoform	ND
	1,1-Dichloroethene	ND		1,1,2,2-Tetrachloroethane	ND
	1,1-Dichloroethane	ND		Tetrachloroethylene	ND
	trans-1,2-Dichloroethene	ND		Chlorobenzene	ND
	Chloroform	ND		1,3-Dichlorobenzene	ND
	1,2-Dichloroethane	ND		1,2-Dichlorobenzene	ND
	1,1,1-Trichloroethane	ND		1,4-Dichlorobenzene	ND
	Carbon Tetrachloride	ND			
	Bromodichloromethane	ND			
	1,2-Dichloropropane	ND			
	trans-1,3-Dichloropropene	ND			

CORPORATION

PAGE 25 Analytical Serv REPORT LAB # 85-01-070
RECEIVED: 01/18/85 Results by Sample Continued From Above

SAMPLE ID 12C5 FRACTION 06B TEST CODE SW8010 NAME GC-HECD Halog. Vol. - SW846
Date & Time Collected 01/17/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

All results reported in ug/kg unless otherwise specified.

ND = not detected at detection limit of 1 ug/kg, unless otherwise specified.

CORPORATION

PAGE 26 Analytical Serv REPORT LAB # 85-01-070
RECEIVED: 01/18/85 Results by Sample

SAMPLE ID 12C5 FRACTION Q6C TEST CODE SW8020 NAME GC-PID Arom. Vol. - SW846
Date & Time Collected 01/17/85 Category

DATA FILE D DATE INJECTED 01/21/85 ANALYST MCL VERIFIED BY JSG
CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT.
SCAN = scan number or retention time on chromatogram.
All results reported in ug/kg unless otherwise specified.
ND = not detected at detection limit of 1 ug/kg/ unless otherwise specified.

CORPORATION

PAGE 1 Analytical Serv REPORT LAB # 85-01-083

RECEIVED: 01/18/85 04/10/85 15:36:07

REPORT TO: Radian
B1 4
Austin

ATTEN: Larry French

CLIENT: CARSWELL D06 SAMPLES: 5
COMPANY: Carswell AFB
FACILITY:

WORK ID: soil site 5
TAKEN: LNF, JLM, PAW
TRANS TYPE: Fed Ex
P.O. #: 214-114-06-42
INVOICE: under separate cover

PREPARED BY: Radian Analytical Services
8501 MoPac Blvd.
P.O. Box 9948
Austin, Texas 78766

ATTEN:
PHONE: (512) 454-4797

CERTIFIED BY

CONTACT CONOVER

Note: Detection limits for Methods 8010 and 8020 are 10 ug/kg and 250 ug/kg, respectively.

Footnotes and Comments

* Indicates a value less than 5 times the detection limit. Potential error for such low values ranges between 50 and 100%.

@ Indicates that spike recovery for this analysis on the specific matrix was not within acceptable limits indicating an interferent present.

SAMPLE IDENTIFICATION

01	85-0858
02	85-0859
03	85-0838
04	85-0839
05	85-0840

Analytical Serv TEST CODES and NAMES used on this report

EP MET	RCRA Metals
H1RCRA	RCRA Herbicides
ONG IR	Oil and Grease, Infrared
P1RCRA	RCRA Pesticides
PHEN A	Total Phenolics
PREP W	Special Digestion Method
PREP X	Special Digestion Method
SW8010	GC-HECD Halog. Vol. - SW846
SW8020	GC-PID Arom. Vol. - SW846

CORPORATION

PAGE 2 Analytical Serv REPORT LAB # 85-01-083
RECEIVED: 01/18/85 RESULTS BY TEST

TEST CODE default units	Sample 01 (entered units)	Sample 02 (entered units)	Sample 03 (entered units)	Sample 04 (entered units)	Sample 05 (entered units)
ONG_IR mg/L	<10 ug/g	10 ug/g	<10 ug/g	<10 ug/g	<10 ug/g
PHEN_A mg/L	0.3 ug/g	<.1 ug/g	<.1 ug/g	<.1 ug/g	<.1 ug/g
PREP_W date complete	01/24/85	01/28/85 01/28/85	01/28/85	01/28/85	01/24/85
PREP_X date complete	01/25/85	01/25/85	01/25/85	01/25/85	01/25/85

CORPORATION

PAGE 3 Analytical Serv REPORT LAB # 85-01-083
RECEIVED: 01/18/85 Results by Sample

SAMPLE ID 85-0858 FRACTION 01D TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 01/16/85 Category

DATE ANALYZED 04/08/85 VERIFIED BY GMC

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	<.20	AS	Arsenic	7.1
BA	Barium	2.8	HG	Mercury	0.09
CD	Cadmium	0.47	PB	Lead	<7.8
CR	Chromium	2.0	SE	Selenium	<7.9

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/g unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

CORPORATION

PAGE 4 Analytical Serv REPORT LAB # 85-01-083
RECEIVED: 01/18/85 Results by Sample

SAMPLE ID 85-0858 FRACTION 01C TEST CODE H1RCRA NAME RCRA Herbicides
Date & Time Collected 01/16/85 Category

DATE EXTRACTED 03/07/85 DATE INJECTED 04/02/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER HERBICIDES	RESULT	DET. LIMIT
2,4-D	ND	.004			
2,4,5-TP (Silvex)	ND	.004			
2,4,5-T	ND	.004			

NOTES AND DEFINITIONS FOR THIS REPORT.
ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

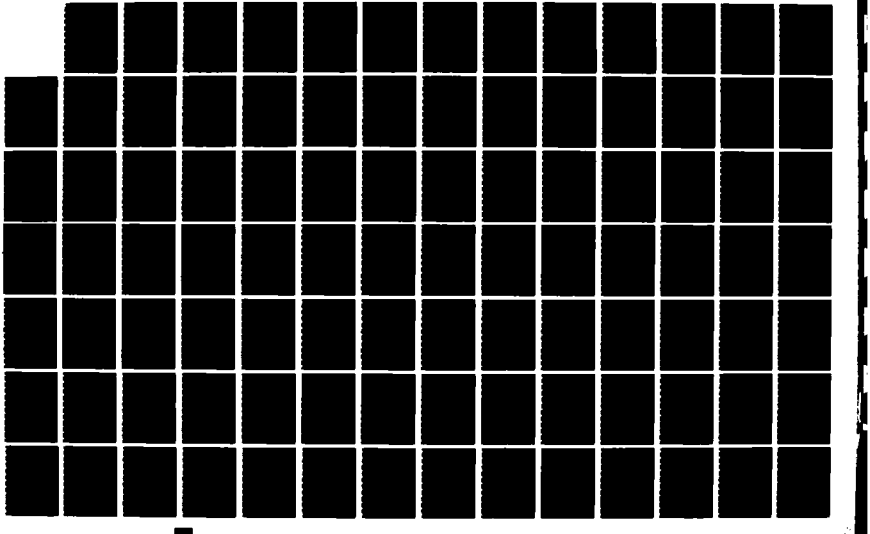
SAMPLE ID 85-0858 FRACTION 01C TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 01/16/85 Category

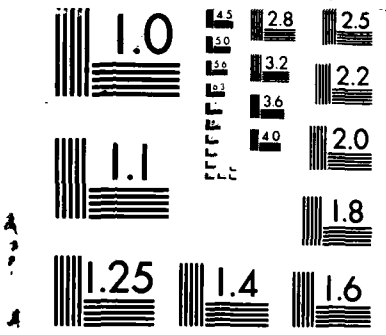
DATE EXTRACTED 02/26/85 DATE INJECTED 03/01/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER PESTICIDES	RESULT	DET. LIMIT
Lindane	ND	0.1			
Endrin	ND	0.1			
Methoxychlor	ND	1.0			
Toxaphene	ND	1.0	reported in ug/kg		
Chlordane	ND	1.0			

NOTES AND DEFINITIONS FOR THIS REPORT.

AD-A174 196 INSTALLATION RESTORATION PROGRAM PHASE II 2/9
CONFIRMATION/QUANTIFICATION STAGE 1 VOLUME 2 APPENDIX A
(U) RADIAN CORP AUSTIN TX OCT 86 F33615-84-D-4402
UNCLASSIFIED F/G 13/2 NL





MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

CORPORATION

PAGE 5 Analytical Serv REPORT LAB # 85-01-083
RECEIVED: 01/18/85 Results by Sample Continued From Above

SAMPLE ID 85-0858 FRACTION 01C TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 01/16/85 Category

ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

CORPORATION

PAGE 6 Analytical Serv REPORT LAB # 85-01-083
RECEIVED: 01/18/85 Results by Sample

SAMPLE ID 85-0858 FRACTION 01A TEST CODE SW8010 NAME GC-HECD Haloq. Vol. - SW846
Date & Time Collected 01/16/85 Category

DATA FILE A DATE INJECTED 01/22/85 ANALYST MCL VERIFIED BY JSG
CONC. FACTOR INSTRUMENT a COMPOUNDS DETECTED 2

SCAN	COMPOUND	RESULT
	Chloromethane	ND
	Bromomethane	ND
	Vinyl Chloride	ND
	Chloroethane	ND
	Methylene Chloride	ND
	Trichlorofluoromethane	ND
	1,1-Dichloroethene	ND
	1,1-Dichloroethane	ND
1	trans-1,2-Dichloroethene	24
	Chloroform	ND
	1,2-Dichloroethane	ND
	1,1,1-Trichloroethane	ND
	Carbon Tetrachloride	ND
	Bromodichloromethane	ND
	1,2-Dichloropropane	ND
	trans-1,3-Dichloropropene	ND

SCAN	COMPOUND	RESULT
2	Trichloroethene	287
	Dibromochloromethane	ND
	1,1,2-Trichloroethane	ND
	cis-1,3-Dichloropropene	ND
	2-Chloroethylvinyl Ether	ND
	Bromoform	ND
	1,1,2,2-Tetrachloroethane	ND
	Tetrachloroethylene	ND
	Chlorobenzene	ND
	1,3-Dichlorobenzene	ND
	1,2-Dichlorobenzene	ND
	1,4-Dichlorobenzene	ND

CORPORATION

PAGE 7 Analytical Serv REPORT LAB # 85-01-083
RECEIVED: 01/18/85 Results by Sample Continued From Above

SAMPLE ID 85-0858 FRACTION 01A TEST CODE SW8010 NAME GC-HECD Haloq. Vol. - SW846
Date & Time Collected 01/16/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

All results reported in ug/kg unless otherwise specified.

ND = not detected at detection limit of 1 ug/kg, unless otherwise specified.

CORPORATION

PAGE 8 Analytical Serv REPORT LAB # 85-01-083
RECEIVED: 01/18/85 Results by Sample

SAMPLE ID 85-0858 FRACTION 01A TEST CODE SW8020 NAME GC-PID Arom. Vol.- SW846
Date & Time Collected 01/16/85 Category

DATA FILE D DATE INJECTED 01/23/85 ANALYST MCL VERIFIED BY JSG
CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT.
SCAN = scan number or retention time on chromatogram.
All results reported in ug/kg unless otherwise specified.
ND = not detected at detection limit of 1 ug/kg, unless otherwise specified.

CORPORATION

PAGE 9 Analytical Serv REPORT LAB # 85-01-083
RECEIVED: 01/18/85 Results by Sample

SAMPLE ID 85-0859 FRACTION 02E TEST CODE EP MET NAME RCRA Metals
Date & Time Collected not specified Category

DATE ANALYZED 04/08/85 VERIFIED BY GMC

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	1.0	AS	Arsenic	<5.8
BA	Barium	19	HG	Mercury	0.09
CD	Cadmium	<.19	PB	Lead	<7.8
CR	Chromium	4.1	SE	Selenium	<7.8

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/g unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

SAMPLE ID 85-0859 FRACTION 02B TEST CODE H1RCRA NAME RCRA Herbicides
Date & Time Collected not specified Category

DATE EXTRACTED 03/07/85 DATE INJECTED 04/02/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER HERBICIDES	RESULT	DET. LIMIT
2,4-D	ND	.004			
2,4,5-TP (Silvex)	ND	.004			
2,4,5-T	ND	.004			

NOTES AND DEFINITIONS FOR THIS REPORT.
ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

SAMPLE ID 85-0859 FRACTION 02B TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected not specified Category

DATE EXTRACTED 02/26/85 DATE INJECTED 03/01/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER PESTICIDES	RESULT	DET. LIMIT
Lindane	ND	0.1			
Endrin	ND	0.1			
Methoxychlor	ND	1.0			
Toxaphene	ND	1.0	reported in ug/kg		
Chlordane	ND	1.0			

NOTES AND DEFINITIONS FOR THIS REPORT

CORPORATION

PAGE 11 Analytical Serv REPORT LAB # 85-01-083
RECEIVED: 01/18/85 Results by Sample Continued From Above

SAMPLE ID 85-0859 FRACTION 02B TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected not specified Category

ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

CORPORATION

PAGE 12 Analytical Serv REPORT LAB # 85-01-083
RECEIVED: 01/18/85 Results by Sample

SAMPLE ID 85-0859 FRACTION 02A TEST CODE SW8010 NAME GC-HECD Halog. Vol. - SW846
Date & Time Collected not specified Category

DATA FILE A DATE INJECTED 01/22/85 ANALYST RAA VERIFIED BY JSG
CONC. FACTOR INSTRUMENT a COMPOUNDS DETECTED 1

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Chloromethane	ND	1	Trichloroethene	257
	Bromomethane	ND		Dibromochloromethane	ND
	Vinyl Chloride	ND		1,1,2-Trichloroethane	ND
	Chloroethane	ND		cis-1,3-Dichloropropene	ND
	Methylene Chloride	ND		2-Chloroethylvinyl Ether	ND
	Trichlorofluoromethane	ND		Bromoform	ND
	1,1-Dichloroethene	ND		1,1,2,2-Tetrachloroethane	ND
	1,1-Dichloroethane	ND		Tetrachloroethylene	ND
	trans-1,2-Dichloroethene	ND		Chlorobenzene	ND
	Chloroform	ND		1,3-Dichlorobenzene	ND
	1,2-Dichloroethane	ND		1,2-Dichlorobenzene	ND
	1,1,1-Trichloroethane	ND		1,4-Dichlorobenzene	ND
	Carbon Tetrachloride	ND			
	Bromodichloromethane	ND			
	1,2-Dichloropropane	ND			
	trans-1,3-Dichloropropene	ND			

CORPORATION

PAGE 13 Analytical Serv REPORT LAB # 85-01-083
RECEIVED: 01/18/85 Results by Sample Continued From Above

SAMPLE ID 85-0859 FRACTION 02A TEST CODE SW8010 NAME GC-HECD Haloq. Vol. - SW846
Date & Time Collected not specified Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

All results reported in ug/kg unless otherwise specified.

ND = not detected at detection limit of 1 ug/kg, unless otherwise specified.

CORPORATION

PAGE 14 Analytical Serv REPORT LAB # 85-01-083
RECEIVED: 01/18/85 Results by Sample

SAMPLE ID 85-0859 FRACTION 02A TEST CODE SW8020 NAME GC-PID Arom. Vol. - SW846
Date & Time Collected not specified Category

DATA FILE D DATE INJECTED 01/23/85 ANALYST MCL VERIFIED BY JSG
CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT.
SCAN = scan number or retention time on chromatogram.
All results reported in ug/kg unless otherwise specified.
ND = not detected at detection limit of 1 ug/kg, unless otherwise specified.

CORPORATION

PAGE 15 Analytical Serv REPORT LAB # 85-01-083
RECEIVED: 01/18/85 Results by Sample

SAMPLE ID 85-0838 FRACTION 03C TEST CODE EP MET NAME RCRA Metals
Date & Time Collected not specified Category

DATE ANALYZED 04/08/85 VERIFIED BY GMC

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	0.45	AS	Arsenic	<5.9
BA	Barium	70	HG	Mercury	0.21
CD	Cadmium	0.39	PB	Lead	<7.9
CR	Chromium	47	SE	Selenium	<7.9

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/g unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

SAMPLE ID 85-0838 FRACTION Q3B TEST CODE H1RCRA NAME RCRA Herbicides
Date & Time Collected not specified Category

DATE EXTRACTED 03/07/85 DATE INJECTED 04/02/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER HERBICIDES	RESULT	DET. LIMIT
2,4-D	ND	.004			
2,4,5-TP (Silvex)	ND	.004			
2,4,5-T	ND	.004			

NOTES AND DEFINITIONS FOR THIS REPORT.
ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

SAMPLE ID 85-0838 FRACTION Q3B TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected not specified Category

DATE EXTRACTED 02/26/85 DATE INJECTED 03/01/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER PESTICIDES	RESULT	DET. LIMIT
Lindane	ND	0.1			
Endrin	ND	0.1			
Methoxychlor	ND	1.0			
Toxaphene	ND	1.0	reported in ug/kg		
Chlordane	ND	1.0			

NOTES AND DEFINITIONS FOR THIS REPORT

CORPORATION

PAGE 17 Analytical Serv REPORT LAB # 85-01-083
RECEIVED: 01/18/85 Results by Sample Continued From Above

SAMPLE ID 85-0838 FRACTION 03B TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected not specified Category

ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

CORPORATION

PAGE 18 Analytical Serv REPORT LAB # 85-01-083
RECEIVED: 01/18/85 Results by Sample

SAMPLE ID 85-0838 FRACTION Q3A TEST CODE SW8010 NAME GC-HECD Halog. Vol.- SW846
Date & Time Collected not specified Category

DATA FILE A DATE INJECTED 01/22/85 ANALYST RAA VERIFIED BY JSG
CONC. FACTOR INSTRUMENT a COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Chloromethane	ND		Trichloroethene	ND
	Bromomethane	ND		Dibromochloromethane	ND
	Vinyl Chloride	ND		1,1,2-Trichloroethane	ND
	Chloroethane	ND		cis-1,3-Dichloropropene	ND
	Methylene Chloride	ND		2-Chloroethylvinyl Ether	ND
	Trichlorofluoromethane	ND		Bromoform	ND
	1,1-Dichloroethene	ND		1,1,2,2-Tetrachloroethane	ND
	1,1-Dichloroethane	ND		Tetrachloroethylene	ND
	trans-1,2-Dichloroethene	ND		Chlorobenzene	ND
	Chloroform	ND		1,3-Dichlorobenzene	ND
	1,2-Dichloroethane	ND		1,2-Dichlorobenzene	ND
	1,1,1-Trichloroethane	ND		1,4-Dichlorobenzene	ND
	Carbon Tetrachloride	ND			
	Bromodichloromethane	ND			
	1,2-Dichloropropane	ND			
	trans-1,3-Dichloropropene	ND			

CORPURATION

PAGE 19 Analytical Serv REPORT LAB # 85-01-083
RECEIVED: 01/18/85 Results by Sample Continued From Above

SAMPLE ID 85-0838 FRACTION 03A TEST CODE SW8010 NAME GC-HECD Haloq. Vol. - SW846
Date & Time Collected not specified Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

All results reported in ug/kg unless otherwise specified.

ND = not detected at detection limit of 1 ug/kg, unless otherwise specified.

CORPORATION

PAGE 20 Analytical Serv REPORT LAB # 85-01-083
RECEIVED: 01/18/85 Results by Sample

SAMPLE ID 85-0838 FRACTION 03A TEST CODE SW8020 NAME GC-PID Arom. Vol. - SW846
Date & Time Collected not specified Category

DATA FILE D DATE INJECTED 01/23/85 ANALYST CAC VERIFIED BY JSG
CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT.
SCAN = scan number or retention time on chromatogram.
All results reported in ug/kg unless otherwise specified.
ND = not detected at detection limit of 1 ug/kg, unless otherwise specified.

CORPORATION

PAGE 21 Analytical Serv REPORT LAB # 85-01-083
RECEIVED: 01/18/85 Results by Sample

SAMPLE ID 85-0839 FRACTION Q4C TEST CODE EP MET NAME RCRA Metals
Date & Time Collected not specified Category

DATE ANALYZED 04/08/85 VERIFIED BY GMC

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	0.54	AS	Arsenic	9.4
BA	Barium	13	HG	Mercury	0.08
CD	Cadmium	0.62	PB	Lead	8.4
CR	Chromium	3.7	SE	Selenium	<7.7

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/g unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

CORPORATION

PAGE 22 Analytical Serv REPORT LAB # 85-01-083
RECEIVED: 01/18/85 Results by Sample

SAMPLE ID 85-0839 FRACTION 04B TEST CODE H1RCRA NAME RCRA Herbicides
Date & Time Collected not specified Category

DATE EXTRACTED 03/07/85 DATE INJECTED 04/02/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER HERBICIDES	RESULT	DET. LIMIT
2,4-D	ND	.004			
2,4,5-TP (Silvex)	ND	.004			
2,4,5-T	ND	.004			

NOTES AND DEFINITIONS FOR THIS REPORT.
ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

SAMPLE ID 85-0839 FRACTION 04B TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected not specified Category

DATE EXTRACTED 02/26/85 DATE INJECTED 03/01/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER PESTICIDES	RESULT	DET. LIMIT
Lindane	ND	0.1			
Endrin	ND	0.1			
Methoxychlor	ND	1.0			
Toxaphene	ND	1.0	reported in ug/kg		
Chlordane	ND	1.0			

NOTES AND DEFINITIONS FOR THIS REPORT.

CORPORATION

PAGE 23 Analytical Serv REPORT LAB # 85-01-083
RECEIVED: 01/18/85 Results by Sample Continued From Above

SAMPLE ID 85-0839 FRACTION Q4B TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected not specified Category

ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

CORPORATION

PAGE 24 Analytical Serv REPORT LAB # 85-01-083
RECEIVED: 01/18/85 Results by Sample

SAMPLE ID 85-0839 FRACTION Q4A TEST CODE SW8010 NAME GC-HECD Haloq. Vol. - SW846
Date & Time Collected not specified Category

DATA FILE A DATE INJECTED 01/22/85 ANALYST RAA VERIFIED BY JSG
CONC. FACTOR INSTRUMENT a COMPOUNDS DETECTED 2

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Chloromethane	ND	2	Trichloroethene	338
	Bromomethane	ND		Dibromochloromethane	ND
	Vinyl Chloride	ND		1,1,2-Trichloroethane	ND
	Chloroethane	ND		cis-1,3-Dichloropropene	ND
	Methylene Chloride	ND		2-Chloroethylvinyl Ether	ND
	Trichlorofluoromethane	ND		Bromoform	ND
	1,1-Dichloroethene	ND		1,1,2,2-Tetrachloroethane	ND
	1,1-Dichloroethane	ND		Tetrachloroethylene	ND
1	trans-1,2-Dichloroethene	33		Chlorobenzene	ND
	Chloroform	ND		1,3-Dichlorobenzene	ND
	1,2-Dichloroethane	ND		1,2-Dichlorobenzene	ND
	1,1,1-Trichloroethane	ND		1,4-Dichlorobenzene	ND
	Carbon Tetrachloride	ND			
	Bromodichloromethane	ND			
	1,2-Dichloropropane	ND			
	trans-1,3-Dichloropropene	ND			

CORPORATION

PAGE 25 Analytical Serv REPORT LAB # 85-01-083
RECEIVED: 01/18/85 Results by Sample Continued From Above

SAMPLE ID 85-0839 FRACTION Q4A TEST CODE SW8010 NAME GC-HECD Halog. Vol. - SW846
Date & Time Collected not specified Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

All results reported in ug/kg unless otherwise specified.

ND = not detected at detection limit of 1 ug/kg, unless otherwise specified.

CORPORATION

PAGE 26 Analytical Serv REPORT LAB # 85-01-083
RECEIVED: 01/18/85 Results by Sample

SAMPLE ID 85-0839 FRACTION 04A TEST CODE SW8020 NAME GC-PID Arom. Vol. - SW846
Date & Time Collected not specified Category

DATA FILE D DATE INJECTED 01/23/85 ANALYST CAC VERIFIED BY JSG
CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 1

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
1	Toluene	460		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT
SCAN = Scan number or retention time on chromatogram
All results reported in ug/kg unless otherwise specified
ND = not detected at detection limit of 1 ug/kg, unless otherwise specified.

CORPORATION

PAGE 27 Analytical Serv REPORT LAB # 85-01-083
RECEIVED: 01/18/85 Results by Sample

SAMPLE ID 85-0840 FRACTION 05C TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 01/15/85 Category

DATE ANALYZED 04/08/85 VERIFIED BY GMC

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	<.20	AS	Arsenic	<5.9
BA	Barium	4.4	HG	Mercury	<.05
CD	Cadmium	<.20	PB	Lead	<7.9
CR	Chromium	0.74	SE	Selenium	<7.9

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/g unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

SAMPLE ID 85-0840 FRACTION Q5B TEST CODE H1RCRA NAME RCRA Herbicides
Date & Time Collected 01/15/85 Category

DATE EXTRACTED 03/07/85 DATE INJECTED 04/02/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER HERBICIDES	RESULT	DET. LIMIT
2,4-D	ND	.004			
2,4,5-TP (Silvex)	ND	.004			
2,4,5-T	ND	.004			

NOTES AND DEFINITIONS FOR THIS REPORT.
ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

SAMPLE ID 85-0840 FRACTION Q5B TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 01/15/85 Category

DATE EXTRACTED 02/26/85 DATE INJECTED 03/01/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER PESTICIDES	RESULT	DET. LIMIT
Lindane	ND	0.1			
Endrin	ND	0.1			
Methoxychlor	ND	1.0			
Toxaphene	ND	1.0	reported in ug/kg		
Chlordane	ND	1.0			

NOTES AND DEFINITIONS FOR THIS REPORT

CORPORATION

PAGE 29 Analytical Serv REPORT LAB # 85-01-083
RECEIVED: 01/18/85 Results by Sample Continued From Above

SAMPLE ID 85-0840 FRACTION 05B TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 01/15/85 Category

ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

CORPORATION

PAGE 30 Analytical Serv REPORT LAB # 85-01-083
RECEIVED: 01/18/85 Results by Sample

SAMPLE ID 85-0840 FRACTION 05A TEST CODE SW8010 NAME GC-HECD Haloq. Vol. - SW846
Date & Time Collected 01/15/85 Category

DATA FILE A DATE INJECTED 01/22/85 ANALYST RAA VERIFIED BY JSG
CONC FACTOR INSTRUMENT a COMPOUNDS DETECTED 2

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Chloromethane	ND	2	Trichloroethene	277
	Bromomethane	ND		Dibromochloromethane	ND
	Vinyl Chloride	ND		1,1,2-Trichloroethane	ND
	Chloroethane	ND		cis-1,3-Dichloropropene	ND
	Methylene Chloride	ND		2-Chloroethylvinyl Ether	ND
	Trichlorofluoromethane	ND		Bromoform	ND
	1,1-Dichloroethene	ND		1,1,2,2-Tetrachloroethane	ND
	1,1-Dichloroethane	ND		Tetrachloroethylene	ND
1	trans-1,2-Dichloroethene	15		Chlorobenzene	ND
	Chloroform	ND		1,3-Dichlorobenzene	ND
	1,2-Dichloroethane	ND		1,2-Dichlorobenzene	ND
	1,1,1-Trichloroethane	ND		1,4-Dichlorobenzene	ND
	Carbon Tetrachloride	ND			
	Bromodichloromethane	ND			
	1,2-Dichloropropane	ND			
	trans-1,3-Dichloropropene	ND			

CORPORATION

PAGE 31 Analytical Serv REPORT LAB # 85-01-083
RECEIVED: 01/18/85 Results by Sample Continued From Above

SAMPLE ID 85-0840 FRACTION Q5A TEST CODE SW8010 NAME GC-HECD Haloq. Vol. - SW846
Date & Time Collected 01/15/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

All results reported in ug/kg unless otherwise specified.

ND = not detected at detection limit of 1 ug/kg, unless otherwise specified.

CORPORATION

PAGE 32 Analytical Serv REPORT LAB # 85-01-083
RECEIVED: 01/18/85 Results by Sample

SAMPLE ID 85-0840 FRACTION Q5A TEST CODE SW8020 NAME GC-PID Arom. Vol. - SW846
Date & Time Collected 01/15/85 Category

DATA FILE D DATE INJECTED 01/23/85 ANALYST CAC VERIFIED BY JSG
CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 1

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
1	Ethyl Benzene	1070		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT
SCAN = scan number or retention time on chromatogram.
All results reported in ug/kg unless otherwise specified.
ND = not detected at detection limit of 1 ug/kg, unless otherwise specified

CORPORATION

PAGE 1 Analytical Serv REPORT LAB # 85-01-084

RECEIVED: 01/18/85 03/14/85 10:19:31

REPORT TO: Radian
BJ 4
Austin

ATTEN: Larry French

CLIENT: CARSWELL DOA SAMPLES: 5
COMPANY: Carswell AFB
FACILITY:

WORK ID: water,sites 4,5,12,16
TAKEN: JLM
TRANS: Fed Ex
TYPE:
P O #: 214-114-06-44
INVOICE: under separate cover

PREPARED BY: Radian Analytical Services
8501 MoPac Blvd
P O Box 9948
Austin, Texas 78766

ATTEN:
PHONE: (512) 454-4797

CERTIFIED BY

CONTACT: CONOVER

NOTE: Second column confirmation for EPA 601, split -01. For EPA 602, split -04, ND for 1/10 dilution. When run neat, detector saturated. Floating organic layer suspected.

Footnotes and Comments

* Indicates a value less than 5 times the detection limit. Potential error for such low values ranges between 50 and 100%

@ Indicates that spike recovery for this analysis on the specific matrix was not within acceptable limits indicating an interferent present

SAMPLE IDENTIFICATION

01 85-0864
02 85-0865
03 85-0866
04 85-0867
05 85-0868

Analytical Serv TEST CODES and NAMES used on this report

COD A	Chemical Oxygen Demand
EP MET	RCRA Metals
EX 509	Extraction only-509B Herb
EX 608	Extraction only - 608
GC 601	EPA Method 601/GC
GC 602	EPA Method 602/GC
H1RCRA	RCRA Herbicides
ONG IR	Oil and Grease, Infrared
P1RCRA	RCRA Pesticides
PHEN A	Total Phenolics
TOC	Total Organic Carbon
TOX 1	TOx Single Analysis

CORPORATION

PAGE 2 Analytical Serv REPORT LAB # 85-01-084

RECEIVED: 01/18/85 RESULTS BY TEST

TEST CODE default units	Sample 01 (entered units)	Sample 02 (entered units)	Sample 03 (entered units)	Sample 04 (entered units)	Sample 05 (entered units)
COD_A mg/L	<1	5			
EX_509 date complete	02/15/85				
EX_608 date complete	02/06/85				
ONG_IR mg/L		350	84,000	640	<1
PHEN_A mg/L			0.14		
TOC mg/L	2	8	50,000	200	4
TOX_1 mg/L			0.63		

CORPORATION

PAGE 3 Analytical Serv REPORT LAB # 85-01-084
RECEIVED: 01/18/85 Results by Sample

SAMPLE ID 85-0864 FRACTION 01A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 01/17/85 Category

DATA FILE A DATE INJECTED 01/22/85 ANALYST RAA VERIFIED BY JSG
CONC. FACTOR INSTRUMENT a COMPOUNDS DETECTED 3

SCAN	COMPOUND	RESULT
	Chloromethane	ND
	Bromomethane	ND
1	Vinyl Chloride	2.3
	Chloroethane	ND
2	Methylene Chloride	2.7
	Trichlorofluoromethane	ND
	1,1-Dichloroethene	ND
	1,1-Dichloroethane	ND
	trans-1,2-Dichloroethene	ND
	Chloroform	ND
	1,2-Dichloroethane	ND
	1,1,1-Trichloroethane	ND
	Carbon Tetrachloride	ND
	Bromodichloromethane	ND
	1,2-Dichloropropane	ND
	trans-1,3-Dichloropropene	ND

SCAN	COMPOUND	RESULT
3	Trichloroethene	1.4
	Dibromochloromethane *	ND
	1,1,2-Trichloroethane *	ND
	cis-1,3-Dichloropropene *	ND
	2-Chloroethylvinyl Ether	ND
	Bromoform	ND
	1,1,2,2-Tetrachloroethane #	ND
	Tetrachloroethylene #	ND
	Chlorobenzene	ND
	1,3-Dichlorobenzene	ND
	1,2-Dichlorobenzene	ND
	1,4-Dichlorobenzene	ND

CORPORATION

PAGE 4 Analytical Serv REPORT LAB # 85-01-084
RECEIVED: 01/18/85 Results by Sample Continued From Above

SAMPLE ID 85-0864 FRACTION 01A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 01/17/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT

SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79)
*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

CORPORATION

PAGE 5 Analytical Serv REPORT LAB # 85-01-084
RECEIVED: 01/18/85 Results by Sample

SAMPLE ID 85-0864 FRACTION 01B TEST CODE GC 602 NAME EPA Method 602/GC
Date & Time Collected 01/17/85 Category

DATA FILE D DATE INJECTED 02/06/85 ANALYST RAA VERIFIED BY
CONC FACTOR INSTRUMENT d COMPOUNDS DETECTED

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

CLASS AND DEFINITION FOR THIS REPORT
SCAN - scan number or retention time on chromatogram
All results reported in ug/L unless otherwise specified
ND - not detected at EPA detection limit method 602, (Federal Register, 12/3/79).

CORPORATION

PAGE 6 Analytical Serv REPORT LAB # 85-01-084
RECEIVED 01/18/85 Results by Sample

SAMPLE ID 85-0864 FRACTION 01D TEST CODE H1RCRA NAME RCRA Herbicides
Date & Time Collected 01/17/85 Category

DATE EXTRACTED 02/15/85 DATE INJECTED 02/25/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER HERBICIDES	RESULT	DET. LIMIT
2,4-D	ND	.05			
2,4,5-TP (Silvex)	ND	.01			
2,4,5-T	ND	.002			

NOTES AND DEFINITIONS FOR THIS REPORT.
ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

SAMPLE ID 85-0864 FRACTION 01D TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 01/17/85 Category

DATE EXTRACTED 02/06/85 DATE INJECTED 02/20/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER PESTICIDES	RESULT	DET. LIMIT
Lindane	ND	0.1			
Endrin	ND	0.1			
Methoxychlor	ND	1.0			
Toxaphene	ND	1.0			
Chlordane	ND	1.0			

NOTES AND DEFINITIONS FOR THIS REPORT.

CORPORATION

PAGE 7 Analytical Serv REPORT LAB # 85-01-084
RECEIVED 01/18/85 Results by Sample Continued From Above

SAMPLE ID 85-0864 FRACTION 01D TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 01/17/85 Category

ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

CORPORATION

PAGE 8 Analytical Serv REPORT LAB # 85-01-084
RECEIVED: 01/18/85 Results by Sample

SAMPLE ID 85-0865 FRACTION 02A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 01/17/85 Category

DATA FILE A DATE INJECTED 01/24/85 ANALYST RAA VERIFIED BY JSG
CONC FACTOR INSTRUMENT a COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT
	Chloromethane	ND
	Bromomethane	ND
	Vinyl Chloride	ND
	Chloroethane	ND
	Methylene Chloride	ND
	Trichlorofluoromethane	ND
	1,1-Dichloroethene	ND
	1,1-Dichloroethane	ND
	trans-1,2-Dichloroethene	ND
	Chloroform	ND
	1,2-Dichloroethane	ND
	1,1,1-Trichloroethane	ND
	Carbon Tetrachloride	ND
	Bromodichloromethane	ND
	1,2-Dichloropropane	ND
	trans-1,3-Dichloropropene	ND

SCAN	COMPOUND	RESULT
	Trichloroethene	ND
	Dibromochloromethane *	ND
	1,1,2-Trichloroethane *	ND
	cis-1,3-Dichloropropene *	ND
	2-Chloroethylvinyl Ether	ND
	Bromoform	ND
	1,1,2,2-Tetrachloroethane #	ND
	Tetrachloroethylene #	ND
	Chlorobenzene	ND
	1,3-Dichlorobenzene	ND
	1,2-Dichlorobenzene	ND
	1,4-Dichlorobenzene	ND

CORPORATION

PAGE 9 Analytical Serv REPORT LAB # 85-01-084
RECEIVED: 01/18/85 Results by Sample Continued From Above

SAMPLE ID 85-0865 FRACTION 02A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 01/17/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT:

SCAN # = scan number or retention time on chromatogram
All results reported in ug/l unless otherwise specified.
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

CORPORATION

PAGE 10 Analytical Serv REPORT LAB # 85-01-084
RECEIVED: 01/18/85 Results by Sample

SAMPLE ID 85-0865 FRACTION 02B TEST CODE GC 602 NAME EPA Method 602/GC
Date & Time Collected 01/17/85 Category

DATA FILE D DATE INJECTED 02/07/85 ANALYST RAA VERIFIED BY JSG
CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT
SCAN - scan number or retention time on chromatogram
All results reported in ug/L unless otherwise specified
ND - not detected at EPA detection limit method 602, (Federal Register, 12/3/79).

CORPORATION

PAGE 11 Analytical Serv REPORT LAB # 85-01-084
RECEIVED: 01/18/85 Results by Sample

SAMPLE ID 85-086 FRACTION 03E TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 01/17/85 Category

DATE ANALYZED 02/19/85 VERIFIED BY DLH

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	< 002	AS	Arsenic	< 060
BA	Barium	0 094	HG	Mercury	< 0002
CD	Cadmium	< 002	PB	Lead	< 080
CR	Chromium	< 005	SE	Selenium	< 080

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/ml unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit
All elements determined by ICPES except Hg

CORPORATION

PAGE 12 Analytical Serv REPORT LAB # 85-01-084
RECEIVED: 01/18/85 Results by Sample

SAMPLE ID 85-0866 FRACTION 03A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 01/17/85 Category

DATA FILE A DATE INJECTED 01/24/85 ANALYST RAA VERIFIED BY JSG
CONC FACTOR INSTRUMENT a COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Chloromethane	ND		Trichloroethene	ND
	Bromomethane	ND		Dibromochloromethane *	ND
	Vinyl Chloride	ND		1,1,2-Trichloroethane *	ND
	Chloroethane	ND		cis-1,3-Dichloropropene *	ND
	Methylene Chloride	ND		2-Chloroethylvinyl Ether	ND
	Trichlorofluoromethane	ND		Bromoform	ND
	1,1-Dichloroethene	ND		1,1,2,2-Tetrachloroethane #	ND
	1,1-Dichloroethane	ND		Tetrachloroethylene #	ND
	trans-1,2-Dichloroethene	ND		Chlorobenzene	ND
	Chloroform	ND		1,3-Dichlorobenzene	ND
	1,2-Dichloroethane	ND		1,2-Dichlorobenzene	ND
	1,1,1-Trichloroethane	ND		1,4-Dichlorobenzene	ND
	Carbon Tetrachloride	ND			
	Bromodichloromethane	ND			
	1,2-Dichloropropane	ND			
	trans-1,3-Dichloropropene	ND			

CORPORATION

PAGE 13 Analytical Serv REPORT LAB # 85-01-084
RECEIVED: 01/18/85 Results by Sample Continued From Above

SAMPLE ID 85-0866 FRACTION 03A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 01/17/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

CORPORATION

PAGE 14 Analytical Serv REPORT LAB # 85-01-084
RECEIVED: 01/18/85 Results by Sample

SAMPLE ID 85-0866 FRACTION 03B TEST CODE GC 602 NAME EPA Method 602/GC
Date & Time Collected 01/17/85 Category

DATA FILE D DATE INJECTED 02/07/85 ANALYST RAA VERIFIED BY JSG
CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT
SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified
ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79).

CORPORATION

PAGE 15 Analytical Serv REPORT LAB # 85-01-084

RECEIVED: 01/18/85 Results by Sample

SAMPLE ID 85-0867 FRACTION 04E TEST CODE EP MET NAME RCRA Metals

Date & Time Collected 01/17/85 Category

DATE ANALYZED 02/19/85 VERIFIED BY DLH

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	< 0.002	AS	Arsenic	0.16
BA	Barium	0.29	HG	Mercury	0.0003
CD	Cadmium	0.007	PB	Lead	0.081
CR	Chromium	0.017	SE	Selenium	< 0.080

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/ml unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

CORPORATION

PAGE 1o Analytical Serv REPORT LAB # 85-01-084
RECEIVED: 01/18/85 Results by Sample

SAMPLE ID 85-0867 FRACTION 04A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 01/17/85 Category

DATA FILE A DATE INJECTED 01/24/85 ANALYST RAA VERIFIED BY JSG
CONC FACTOR INSTRUMENT a COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT
	Chloromethane	ND
	Bromomethane	ND
	Vinyl Chloride	ND
	Chloroethane	ND
	Methylene Chloride	ND
	Trichlorofluoromethane	ND
	1,1-Dichloroethene	ND
	1,1-Dichloroethane	ND
	trans-1,2-Dichloroethene	ND
	Chloroform	ND
	1,2-Dichloroethane	ND
	1,1,1-Trichloroethane	ND
	Carbon Tetrachloride	ND
	Bromodichloromethane	ND
	1,2-Dichloropropane	ND
	trans-1,3-Dichloropropene	ND

SCAN	COMPOUND	RESULT
	Trichloroethene	ND
	Dibromochloromethane *	ND
	1,1,2-Trichloroethane *	ND
	cis-1,3-Dichloropropene *	ND
	2-Chloroethylvinyl Ether	ND
	Bromoform	ND
	1,1,2,2-Tetrachloroethane #	ND
	Tetrachloroethylene #	ND
	Chlorobenzene	ND
	1,3-Dichlorobenzene	ND
	1,2-Dichlorobenzene	ND
	1,4-Dichlorobenzene	ND

CORPORATION

PAGE 17 Analytical Serv REPORT LAB # 85-01-084
RECEIVED: 01/18/85 Results by Sample Continued From Above

SAMPLE ID 85-0867 FRACTION 04A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 01/17/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

CORPORATION

PAGE 18 Analytical Serv REPORT LAB # 85-01-084
RECEIVED: 01/16/85 Results by Sample

SAMPLE ID 85-0857 FRACTION 04B TEST CODE GC 602 NAME EPA Method 602/GC
Date & Time Collected 01/17/85 Category

DATA FILE B DATE INJECTED 02/07/85 ANALYST RAA VERIFIED BY JSG
CONC FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT
SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified
ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79).

CORPORATION

PAGE 19 Analytical Serv REPORT LAB # 85-01-084
RECEIVED: 01/18/85 Results by Sample

SAMPLE ID 85-0868 FRACTION Q5E TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 01/17/85 Category

DATE ANALYZED 02/18/85 VERIFIED BY DLH

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	< .002	AS	Arsenic	< .060
BA	Barium	0.25	HG	Mercury	0.0005
CD	Cadmium	< .002	PB	Lead	< .080
CR	Chromium	< .005	SE	Selenium	< .080

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/ml unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

CORPORATION

PAGE 20 Analytical Serv REPORT LAB # 85-01-084
RECEIVED: 01/19/85 Results by Sample

SAMPLE ID 85-0868 FRACTION 05A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 01/17/85 Category

DATA FILE A DATE INJECTED 01/25/85 ANALYST RAA VERIFIED BY JSG
CONC. FACTOR INSTRUMENT a COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Chloromethane	ND		Trichloroethene	ND
	Bromomethane	ND		Dibromochloromethane *	ND
	Vinyl Chloride	ND		1,1,2-Trichloroethane *	ND
	Chloroethane	ND		cis-1,3-Dichloropropene *	ND
	Methylene Chloride	ND		2-Chloroethylvinyl Ether	ND
	Trichlorofluoromethane	ND		Bromoform	ND
	1,1-Dichloroethene	ND		1,1,2,2-Tetrachloroethane #	ND
	1,1-Dichloroethane	ND		Tetrachloroethylene #	ND
	trans-1,2-Dichloroethene	ND		Chlorobenzene	ND
	Chloroform	ND		1,3-Dichlorobenzene	ND
	1,2-Dichloroethane	ND		1,2-Dichlorobenzene	ND
	1,1,1-Trichloroethane	ND		1,4-Dichlorobenzene	ND
	Carbon Tetrachloride	ND			
	Bromodichloromethane	ND			
	1,2-Dichloropropane	ND			
	trans-1,3-Dichloropropene	ND			

CORPORATION

PAGE 21 Analytical Serv REPORT LAB # 85-01-084
RECEIVED: 01/18/85 Results by Sample Continued From Above

SAMPLE ID 85-0858 FRACTION 05A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 01/17/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT

SCAN = scan number or retention time on chromatogram
All results reported in ug/L unless otherwise specified
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79)
*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

CORPORATION

PAGE 32 Analytical Serv REPORT LAB # 85-01-084
RECEIVED: 01/18/85 Results by Sample

SAMPLE ID 85-0868 FRACTION 05B TEST CODE GC 602 NAME EPA Method 602/GC
Date & Time Collected 01/17/85 Category

DATA FILE D DATE INJECTED 02/01/85 ANALYST MCC VERIFIED BY JSG
CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

[illegible] INITIALS FOR THIS REPORT
SCAN = scan number or retention time on chromatogram
All results reported in ug/L unless otherwise specified
ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79).

FRACTION AND TEST CODES FOR WORK NOT REPORTED ELSEWHERE

CORPORATION

PAGE 1 Analytical Serv REPORT LAB # 85-01-085

RECEIVED: 01/22/85 03/11/85 11:14:33

REPORT TO: Bl 4
Austin

ATTEN: Larry French

CLIENT: CARSWELL DO6 SAMPLES: 2
COMPANY: Carswell AFB
FACILITY:

WORK ID: soil site 15
TAKEN: LNF
TRANS: Fed Ex
TYPE:
P.O #: 214-114-06-42
INVOICE: under separate cover

PREPARED BY: Radian Analytical Services
8501 MoPac Blvd
P.O. Box 9948
Austin, Texas 78766

ATTEN:
PHONE: (512) 454-4797

CERTIFIED BY

CONTACT CONOVER

Footnotes and Comments

* Indicates a value less than 5 times the detection limit Potential error for such low values ranges between 50 and 100%.

@ Indicates that spike recovery for this analysis on the specific matrix was not within acceptable limits indicating an interferent present.

SAMPLE IDENTIFICATION

01 85-0874
02 85-0875

Analytical Serv TEST CODES and NAMES used on this report

H1RCRA RCRA Herbicides
P1RCRA RCRA Pesticides

CORPORATION

PAGE 2 Analytical Serv REPORT LAB # 85-01-085
RECEIVED: 01/22/85 Results by Sample

SAMPLE ID 85-0874 FRACTION 01A TEST CODE H1RCRA NAME RCRA Herbicides
Date & Time Collected 01/18/85 Category

DATE EXTRACTED 02/19/85 DATE INJECTED 02/26/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER HERBICIDES	RESULT	DET. LIMIT
2,4-D	ND	.05			
2,4,5-TP (Silvex)	ND	.01			
2,4,5-T	ND	.002			

NOTES AND DEFINITIONS FOR THIS REPORT.
ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

SAMPLE ID 85-0874 FRACTION 01A TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 01/18/85 Category

DATE EXTRACTED 02/26/85 DATE INJECTED 03/07/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER PESTICIDES	RESULT	DET. LIMIT
Lindane	ND	0.1			
Endrin	ND	0.1			
Methoxychlor	ND	1.0			
Toxaphene	ND	1.0			
Chlordane	ND	1.0			

NOTES AND DEFINITIONS FOR THIS REPORT

CORPORATION

PAGE 3 Analytical Serv REPORT LAB # 85-01-085
RECEIVED: 01/22/85 Results by Sample Continued From Above

SAMPLE ID 85-0874 FRACTION Q1A TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 01/18/85 Category

ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

SAMPLE ID 85-0875 FRACTION Q2A TEST CODE H1RCRA NAME RCRA Herbicides
Date & Time Collected 01/18/85 Category

DATE EXTRACTED 02/19/85 DATE INJECTED 02/26/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER HERBICIDES	RESULT	DET. LIMIT
2,4-D	ND	.05			
2,4,5-TP (Silvex)	ND	.01			
2,4,5-T	ND	.002			

NOTES AND DEFINITIONS FOR THIS REPORT.
ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

SAMPLE ID 85-0875 FRACTION Q2A TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 01/18/85 Category

DATE EXTRACTED 02/26/85 DATE INJECTED 03/02/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET LIMIT	OTHER PESTICIDES	RESULT	DET. LIMIT
Lindane	ND	0.1			
Endrin	ND	0.1			
Methoxychlor	ND	1.0			

SAMPLE ID 85-0875 FRACTION 02A TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 01/18/85 Category

Toxaphene	ND	1.0
Chlordane	ND	1.0

NOTES AND DEFINITIONS FOR THIS REPORT.
ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

CORPORATION

PAGE 1 Analytical Serv REPORT LAB # 85-01-086

RECEIVED: 01/22/85 01/31/85 11:48:11

REPORT TO: Radian
Bl. 4
Austin

ATTEN: Larry French

CLIENT: CARSWELL DO6 SAMPLES: 7
COMPANY: Carswell AFB
FACILITY:

PREPARED BY: Radian Analytical Services
8501 MoPac Blvd.
P.O. Box 9948
Austin, Texas 78766

ATTEN:
PHONE: (512) 454-4797

CERTIFIED BY

CONTACT: CONOVER

WORK ID: soil site 17
TAKEN: JBC
TRANS TYPE: Fed Ex
P.O. #: 214-114-06-42
INVOICE: under separate cover

Footnotes and Comments

* Indicates a value less than 5 times the detection limit. Potential error for such low values ranges between 50 and 100%.

@ Indicates that spike recovery for this analysis on the specific matrix was not within acceptable limits indicating an interferent present.

SAMPLE IDENTIFICATION

01 85-0889
02 85-0890
03 85-0891
04 85-0892
05 85-0893
06 85-0894
07 85-0895

Analytical Serv TEST CODES and NAMES used on this report

ONG IR Oil and Grease, Infrared
PREP W Special Digestion Method

CORPORATION

PAGE 2 Analytical Serv REPORT LAB # 85-01-086
RECEIVED: 01/22/85 Results by Sample

SAMPLE ID 85-0889 SAMPLE # 01 FRACTIONS: A
Date & Time Collected 01/21/85 Category

ONG_IR <10 ug/g PREP_W 01/28/85 date complete

SAMPLE ID 85-0890 SAMPLE # 02 FRACTIONS: A
Date & Time Collected 01/21/85 Category

ONG_IR <10 ug/g PREP_W 01/28/85 date complete

SAMPLE ID 85-0891 SAMPLE # 03 FRACTIONS: A
Date & Time Collected 01/21/85 Category

ONG_IR <10 ug/g PREP_W 01/28/85 date complete

SAMPLE ID 85-0892 SAMPLE # 04 FRACTIONS: A
Date & Time Collected 01/21/85 Category

ONG_IR <10 ug/g PREP_W 01/28/85 date complete

SAMPLE ID 85-0893 SAMPLE # 05 FRACTIONS: A
Date & Time Collected 01/21/85 Category

ONG_IR <10 ug/g PREP_W 01/28/85 date complete

SAMPLE ID 85-0894 SAMPLE # 06 FRACTIONS: A
Date & Time Collected 01/21/85 Category

ONG_IR 510 ug/g PREP_W 01/28/85 date complete

SAMPLE ID 85-0895 SAMPLE # 07 FRACTIONS: A
Date & Time Collected 01/21/85 Category

ONG_IR <10 ug/g PREP_W 01/28/85 date complete

CORPORATION

PAGE 1 Analytical Serv REPORT LAB # 85-01-087

RECEIVED 01/22/85 03/12/85 11:38:25

REPORT TO: Radian
Bl. 4
Austin

ATTEN: Larry French

CLIENT: CARSWELL D06 SAMPLES: 6
COMPANY: Carswell AFB
FACILITY:

WORK ID: soil site 12
TAKEN: JLM/PAW
TRANS: Fed Ex
TYPE:
P.O. #: 214-114-06-42
INVOICE: under separate cover

PREPARED BY: Radian Analytical Services
8501 MoPac Blvd.
P.O. Box 9948
Austin, Texas 78766

ATTEN:
PHONE: (512) 454-4797

CERTIFIED BY

CONTACT CONOVER

Note: detection limit for 8010 is 10 ug/kg. Detection limit for 8020 is 2500 ug/kg, except -02 (12,500 ug/kg) and -03 (500 ug/kg).

Footnotes and Comments

* Indicates a value less than 5 times the detection limit. Potential error for such low values ranges between 50 and 100%.

@ Indicates that spike recovery for this analysis on the specific matrix was not within acceptable limits indicating an interferent present.

SAMPLE IDENTIFICATION

01	85-0879
02	85-0880
03	85-0880 QA
04	85-0881
05	85-0882
06	85-0883

Analytical Serv TEST CODES and NAMES used on this report

EP MET	RCRA Metals
ONG IR	Oil and Grease, Infrared
PHEN A	Total Phenolics
PREP W	Special Digestion Method
PREP X	Special Digestion Method
SW8010	GC-HECD Halog. Vol. - SW846
SW8020	GC-PID Arom. Vol. - SW846

CORPORATION

PAGE 2 Analytical Serv REPORT LAB # 85-01-087
RECEIVED: 01/22/85 RESULTS BY TEST

TEST CODE default units	Sample 01 (entered units)	Sample 02 (entered units)	Sample 03 (entered units)	Sample 04 (entered units)	Sample 05 (entered units)
ONG_IR mg/L	17,000 ug/g	13,000 ug/g	11,000 ug/g	9800 ug/g	8200 ug/g
PHEN_A mg/L	<.1 ug/g	1.5 ug/g	1.3g ug/g	1.2 ug/g	2.0 ug/g
PREP_W date complete	01/24/85	01/24/85	01/24/85	01/24/85	01/24/85
PREP_X date complete	01/28/85	01/28/85	01/28/85	01/28/85	01/28/85

TEST CODE default units	Sample 06 (entered units)
ONG_IR mg/L	11,000 ug/g
PHEN_A mg/L	2.4 ug/g
PREP_W date complete	01/24/85
PREP_X date complete	01/28/85

CORPORATION

PAGE 3 Analytical Serv REPORT LAB # 85-01-087
RECEIVED: 01/22/85 Results by Sample

SAMPLE ID 85-0879 FRACTION 01B TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 01/18/85 Category

DATE ANALYZED 02/05/85 VERIFIED BY DLH

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	2.8	AS	Arsenic	<3
BA	Barium	20	HG	Mercury	0.12
CD	Cadmium	< 20	PB	Lead	16
CR	Chromium	7.6	SE	Selenium	<4

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/g unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg

CORPORATION

PAGE 4 Analytical Serv REPORT LAB # 85-01-087

RECEIVED: 01/22/85 Results by Sample

SAMPLE ID 85-0879 FRACTION 01A TEST CODE SW8010 NAME GC-HECD Haloq. Vol. - SW846

Date & Time Collected 01/18/85 Category

DATA FILE A DATE INJECTED 01/22/85 ANALYST RAA VERIFIED BY JSG

CONC. FACTOR INSTRUMENT a COMPOUNDS DETECTED 2

SCAN	COMPOUND	RESULT
	Chloromethane	ND
	Bromomethane	ND
	Vinyl Chloride	ND
	Chloroethane	ND
	Methylene Chloride	ND
1	Trichlorofluoromethane	210
	1,1-Dichloroethene	ND
	1,1-Dichloroethane	ND
	trans-1,2-Dichloroethene	ND
	Chloroform	ND
	1,2-Dichloroethane	ND
	1,1,1-Trichloroethane	ND
	Carbon Tetrachloride	ND
	Bromodichloromethane	ND
	1,2-Dichloropropane	ND
	trans-1,3-Dichloropropene	ND
2	Trichloroethene	256
	Dibromochloromethane	ND
	1,1,2-Trichloroethane	ND
	cis-1,3-Dichloropropene	ND
	2-Chloroethylvinyl Ether	ND
	Bromoform	ND
	1,1,2,2-Tetrachloroethane	ND
	Tetrachloroethylene	ND
	Chlorobenzene	ND
	1,3-Dichlorobenzene	ND
	1,2-Dichlorobenzene	ND
	1,4-Dichlorobenzene	ND

CORPORATION

PAGE 5 Analytical Serv REPORT LAB # 85-01-087
RECEIVED: 01/22/85 Results by Sample Continued From Above

SAMPLE ID 85-0879 FRACTION 01A TEST CODE SW8010 NAME GC-HECD Haloq. Vol. - SW846
Date & Time Collected 01/18/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

All results reported in ug/kg unless otherwise specified.

ND = not detected at detection limit of 1 ug/kg, unless otherwise specified.

CORPORATION

PAGE 6 Analytical Serv REPORT LAB # 85-01-087
RECEIVED: 01/22/85 Results by Sample

SAMPLE ID 85-0879 FRACTION 01A TEST CODE SW8020 NAME GC-PID Arom. Vol. - SW846
Date & Time Collected 01/18/85 Category

DATA FILE D DATE INJECTED 01/23/85 ANALYST RAA VERIFIED BY JSG
CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 3

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
1	Benzene	6440		1,3-Dichlorobenzene	ND
2	Toluene	12,200		1,2-Dichlorobenzene	ND
3	Ethyl Benzene	32,200		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT:
SCAN = scan number or retention time on chromatogram
All results reported in ug/kg unless otherwise specified
ND = not detected at detection limit of 1 ug/kg, unless otherwise specified.

CORPORATION

PAGE 7 Analytical Serv REPORT LAB # 85-01-087
RECEIVED: 01/22/85 Results by Sample

SAMPLE ID 85-0880 FRACTION 02B TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 01/18/85 Category

DATE ANALYZED 02/05/85 VERIFIED BY DLH

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	2.7	AS	Arsenic	19
BA	Barium	84	HG	Mercury	< 05
CD	Cadmium	0.69	PB	Lead	49
CR	Chromium	15	SE	Selenium	38

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/g unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit
All elements determined by ICPES except Hg.

CORPORATION

PAGE 8 Analytical Serv REPORT LAB # 85-01-087
RECEIVED: 01/22/85 Results by Sample

SAMPLE ID 85-0880 FRACTION 02A TEST CODE SW8010 NAME GC-HECD Haloq. Vol. - SW846
Date & Time Collected 01/18/85 Category

DATA FILE A DATE INJECTED 01/22/85 ANALYST RAA VERIFIED BY JSG
CONC. FACTOR INSTRUMENT a COMPOUNDS DETECTED 3

SCAN	COMPOUND	RESULT
	Chloromethane	ND
	Bromomethane	ND
	Vinyl Chloride	ND
	Chloroethane	ND
	Methylene Chloride	ND
	Trichlorofluoromethane	ND
	1,1-Dichloroethene	ND
	1,1-Dichloroethane	ND
	trans-1,2-Dichloroethene	ND
	Chloroform	ND
	1,2-Dichloroethane	ND
	1,1,1-Trichloroethane	ND
	Carbon Tetrachloride	ND
	Bromodichloromethane	ND
	1,2-Dichloropropane	ND
	trans-1,3-Dichloropropene	ND
1	Trichloroethene	276
	Dibromochloromethane	ND
	1,1,2-Trichloroethane	ND
	cis-1,3-Dichloropropene	ND
	2-Chloroethylvinyl Ether	ND
	Bromoform	ND
2	1,1,2,2-Tetrachloroethane	271
	Tetrachloroethylene	ND
	Chlorobenzene	ND
	1,3-Dichlorobenzene	ND
3	1,2-Dichlorobenzene	699
	1,4-Dichlorobenzene	ND

CORPORATION

PAGE 9 Analytical Serv REPORT LAB # 85-01-087
RECEIVED: 01/22/85 Results by Sample Continued From Above

SAMPLE ID 85-0880 FRACTION 02A TEST CODE SW8010 NAME GC-HECD Halog. Vol. - SW846
Date & Time Collected 01/18/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

All results reported in ug/kg unless otherwise specified.

ND = not detected at detection limit of 1 ug/kg, unless otherwise specified.

CORPORATION

PAGE 10 Analytical Serv REPORT LAB # 85-01-087
RECEIVED: 01/22/85 Results by Sample

SAMPLE ID 85-0880 FRACTION 02A TEST CODE SW8020 NAME GC-PID Arom. Vol. - SW846
Date & Time Collected 01/18/85 Category

DATA FILE D DATE INJECTED 01/24/85 ANALYST CAC VERIFIED BY JSG
CONC FACTOR INSTRUMENT d COMPOUNDS DETECTED 1

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
1	Benzene	752000		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT
SCAN = scan number or retention time on chromatogram
All results reported in ug/kg unless otherwise specified
ND = not detected at detection limit of 1 ug/kg, unless otherwise specified.

CORPORATION

PAGE 11 Analytical Serv REPORT LAB # 85-01-087
RECEIVED: 01/22/85 Results by Sample

SAMPLE ID 85-0880 QA FRACTION 03B TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 01/18/85 Category

DATE ANALYZED 02/05/85 VERIFIED BY DLH

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	1.6	AS	Arsenic	<3
BA	Barium	100	HG	Mercury	0.09
CD	Cadmium	<.39	PB	Lead	54
CR	Chromium	11	SE	Selenium	32

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/g unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

CORPORATION

PAGE 12 Analytical Serv REPORT LAB # 85-01-087
RECEIVED: 01/22/85 Results by Sample

SAMPLE ID 85-0880 QA FRACTION 03A TEST CODE SW8010 NAME GC-HECD Haloq. Vol. - SW846
Date & Time Collected 01/18/85 Category

DATA FILE A DATE INJECTED 01/22/85 ANALYST RAA VERIFIED BY JSG
CONC. FACTOR INSTRUMENT a COMPOUNDS DETECTED 3

SCAN	COMPOUND	RESULT
	Chloromethane	ND
	Bromomethane	ND
	Vinyl Chloride	ND
	Chloroethane	ND
	Methylene Chloride	ND
	Trichlorofluoromethane	ND
	1,1-Dichloroethene	ND
	1,1-Dichloroethane	ND
	trans-1,2-Dichloroethene	ND
	Chloroform	ND
	1,2-Dichloroethane	ND
	1,1,1-Trichloroethane	ND
	Carbon Tetrachloride	ND
	Bromodichloromethane	ND
	1,2-Dichloropropane	ND
	trans-1,3-Dichloropropene	ND
1	Trichloroethene	278
	Dibromochloromethane	ND
	1,1,2-Trichloroethane	ND
	cis-1,3-Dichloropropene	ND
	2-Chloroethylvinyl Ether	ND
	Bromoform	ND
2	1,1,2,2-Tetrachloroethane	274
	Tetrachloroethylene	ND
	Chlorobenzene	ND
	1,3-Dichlorobenzene	ND
3	1,2-Dichlorobenzene	679
	1,4-Dichlorobenzene	ND

CORPORATION

PAGE 13 Analytical Serv REPORT LAB # 85-01-087
RECEIVED: 01/22/85 Results by Sample Continued From Above

SAMPLE ID 85-0880 QA FRACTION 03A TEST CODE SW8010 NAME GC-HECD Haloq. Vol. - SW846
Date & Time Collected 01/18/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

All results reported in ug/kg unless otherwise specified.

ND = not detected at detection limit of 1 ug/kg, unless otherwise specified.

CORPORATION

PAGE 14 Analytical Serv REPORT LAB # 85-01-087
RECEIVED: 01/22/85 Results by Sample

SAMPLE ID 85-0880 QA FRACTION Q3A TEST CODE SW8020 NAME GC-PID Arom. Vol. - SW846
Date & Time Collected 01/18/85 Category

DATA FILE D DATE INJECTED 02/05/85 ANALYST MCL VERIFIED BY JSG
CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 2

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
1	Toluene	27,400		1,2-Dichlorobenzene	ND
2	Ethyl Benzene	23,700		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT
SCAN = scan number or retention time on chromatogram.
All results reported in ug/kg unless otherwise specified.
ND = not detected at detection limit of 1 ug/kg, unless otherwise specified.

CORPORATION

PAGE 15 Analytical Serv REPORT LAB # 85-01-087
RECEIVED: 01/22/85 Results by Sample

SAMPLE ID 85-0881 FRACTION 04B TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 01/18/85 Category

DATE ANALYZED 02/05/85 VERIFIED BY DLH

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	1.6	AS	Arsenic	<3
BA	Barium	74	HG	Mercury	0.10
CD	Cadmium	<.39	PB	Lead	19
CR	Chromium	14	SE	Selenium	24

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/g unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

CORPORATION

PAGE 16 Analytical Serv REPORT LAB # 85-01-087
RECEIVED: 01/22/85 Results by Sample

SAMPLE ID 85-0881 FRACTION Q4A TEST CODE SW8010 NAME GC-HECD Haloq. Vol. - SW846
Date & Time Collected 01/18/85 Category

DATA FILE A DATE INJECTED 01/23/85 ANALYST MCL VERIFIED BY JSG
CONC. FACTOR INSTRUMENT a COMPOUNDS DETECTED 4

SCAN	COMPOUND	RESULT
	Chloromethane	ND
	Bromomethane	ND
	Vinyl Chloride	ND
	Chloroethane	ND
	Methylene Chloride	ND
	Trichlorofluoromethane	ND
	1,1-Dichloroethene	ND
	1,1-Dichloroethane	ND
	trans-1,2-Dichloroethene	ND
	Chloroform	ND
	1,2-Dichloroethane	ND
	1,1,1-Trichloroethane	ND
	Carbon Tetrachloride	ND
	Bromodichloromethane	ND
	1,2-Dichloropropane	ND
	trans-1,3-Dichloropropene	ND
1	Trichloroethene	299
	Dibromochloromethane	ND
	1,1,2-Trichloroethane	ND
	cis-1,3-Dichloropropene	ND
	2-Chloroethylvinyl Ether	ND
	Bromoform	ND
2	1,1,2,2-Tetrachloroethane	327
	Tetrachloroethylene	ND
	Chlorobenzene	ND
3	1,3-Dichlorobenzene	464
4	1,2-Dichlorobenzene	1659
	1,4-Dichlorobenzene	ND

CORPORATION

PAGE 17 Analytical Serv REPORT LAB # 85-01-087
RECEIVED: 01/22/85 Results by Sample Continued From Above

SAMPLE ID 85-0881 FRACTION 04A TEST CODE SW8010 NAME GC-HECD Haloq. Vol. - SW846
Date & Time Collected 01/18/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

All results reported in ug/kg unless otherwise specified.

ND = not detected at detection limit of 1 ug/kg, unless otherwise specified.

CORPORATION

PAGE 18 Analytical Serv REPORT LAB # 85-01-087
RECEIVED: 01/22/85 Results by Sample

SAMPLE ID 85-0881 FRACTION 04A TEST CODE SW8020 NAME GC-PID Arom. Vol. - SW846
Date & Time Collected 01/18/85 Category

DATA FILE D DATE INJECTED 02/05/85 ANALYST MCL VERIFIED BY JSG
CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 2

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
1	Toluene	36,100		1,2-Dichlorobenzene	ND
2	Ethyl Benzene	28,400		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT
SCAN = scan number or retention time on chromatogram.
All results reported in ug/kg unless otherwise specified
ND = not detected at detection limit of 1 ug/kg, unless otherwise specified.

CORPORATION

PAGE 19 Analytical Serv REPORT LAB # 85-01-087
RECEIVED: 01/22/85 Results by Sample

SAMPLE ID 85-0882 FRACTION 05B TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 01/18/85 Category

DATE ANALYZED 02/05/85 VERIFIED BY DLH

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	1.8	AS	Arsenic	<3
BA	Barium	59	HG	Mercury	<.05
CD	Cadmium	<.39	PB	Lead	13
CR	Chromium	9.3	SE	Selenium	17

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/g unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

CORPORATION

PAGE 20 Analytical Serv REPORT LAB # 85-01-087
RECEIVED: 01/22/85 Results by Sample

SAMPLE ID 85-0882 FRACTION 05A TEST CODE SW8010 NAME GC-HECD Haloq. Vol. - SW846
Date & Time Collected 01/18/85 Category

DATA FILE A DATE INJECTED 01/23/85 ANALYST RAA VERIFIED BY JSG
CONC. FACTOR INSTRUMENT a COMPOUNDS DETECTED 4

SCAN	COMPOUND	RESULT
	Chloromethane	ND
	Bromomethane	ND
	Vinyl Chloride	ND
	Chloroethane	ND
	Methylene Chloride	ND
	Trichlorofluoromethane	ND
	1,1-Dichloroethene	ND
	1,1-Dichloroethane	ND
	trans-1,2-Dichloroethene	ND
	Chloroform	ND
	1,2-Dichloroethane	ND
	1,1,1-Trichloroethane	ND
	Carbon Tetrachloride	ND
	Bromodichloromethane	ND
	1,2-Dichloropropane	ND
	trans-1,3-Dichloropropene	ND
1	Trichloroethene	320
	Dibromochloromethane	ND
	1,1,2-Trichloroethane	ND
	cis-1,3-Dichloropropene	ND
	2-Chloroethylvinyl Ether	ND
	Bromoform	ND
2	1,1,2,2-Tetrachloroethane	384
	Tetrachloroethylene	ND
	Chlorobenzene	ND
3	1,3-Dichlorobenzene	364
4	1,2-Dichlorobenzene	1170
	1,4-Dichlorobenzene	ND

CORPORATION

PAGE 21 Analytical Serv REPORT LAB # 85-01-087
RECEIVED: 01/22/85 Results by Sample Continued From Above

SAMPLE ID 85-0882 FRACTION Q5A TEST CODE SW8010 NAME GC-HECD Haloq. Vol. - SW846
Date & Time Collected 01/18/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

All results reported in ug/kg unless otherwise specified.

ND = not detected at detection limit of 1 ug/kg, unless otherwise specified.

CORPORATION

PAGE 22 Analytical Serv REPORT LAB # 85-01-087
RECEIVED: 01/22/85 Results by Sample

SAMPLE ID 85-0882 FRACTION Q5A TEST CODE SW8020 NAME GC-PID Arom. Vol. - SW846
Date & Time Collected 01/18/85 Category

DATA FILE D DATE INJECTED 02/05/85 ANALYST RAA VERIFIED BY JSG
CONC FACTOR INSTRUMENT d COMPOUNDS DETECTED 3

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
1	Toluene	64,300		1,2-Dichlorobenzene	ND
2	Ethyl Benzene	63,600		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT:
SCAN = scan number or retention time on chromatogram.
All results reported in ug/kg unless otherwise specified.
ND = not detected at detection limit of 1 ug/kg, unless otherwise specified.

CORPORATION

PAGE 23 Analytical Serv REPORT LAB # 85-01-087
RECEIVED: 01/22/85 Results by Sample

SAMPLE ID 85-0883 FRACTION Q6B TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 01/18/85 Category

DATE ANALYZED 02/05/85 VERIFIED BY DLH

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	0.46	AS	Arsenic	<3
BA	Barium	23	HG	Mercury	0.21
CD	Cadmium	<.39	PB	Lead	<4
CR	Chromium	8.6	SE	Selenium	<4

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/g unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

CORPORATION

PAGE 24 Analytical Serv REPORT LAB # 85-01-087
RECEIVED: 01/22/85 Results by Sample

SAMPLE ID 85-0883 FRACTION 06A TEST CODE SW8010 NAME GC-HECD Haloq. Vol. - SW846
Date & Time Collected 01/18/85 Category

DATA FILE A DATE INJECTED 01/23/85 ANALYST RAA VERIFIED BY JSG
CONC FACTOR INSTRUMENT a COMPOUNDS DETECTED 4

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Chloromethane	ND	1	Trichloroethene	395
	Bromomethane	ND		Dibromochloromethane	ND
	Vinyl Chloride	ND		1,1,2-Trichloroethane	ND
	Chloroethane	ND		cis-1,3-Dichloropropene	ND
	Methylene Chloride	ND		2-Chloroethylvinyl Ether	ND
	Trichlorofluoromethane	ND		Bromoform	ND
	1,1-Dichloroethene	ND	2	1,1,2,2-Tetrachloroethane	1000
	1,1-Dichloroethane	ND		Tetrachloroethylene	ND
	trans-1,2-Dichloroethene	ND		Chlorobenzene	ND
	Chloroform	ND	3	1,3-Dichlorobenzene	273
	1,2-Dichloroethane	ND	4	1,2-Dichlorobenzene	721
	1,1,1-Trichloroethane	ND		1,4-Dichlorobenzene	ND
	Carbon Tetrachloride	ND			
	Bromodichloromethane	ND			
	1,2-Dichloropropane	ND			
	trans-1,3-Dichloropropene	ND			

CORPORATION

PAGE 35 Analytical Serv REPORT LAB # 85-01-087
RECEIVED: 01/22/85 Results by Sample Continued From Above

SAMPLE ID 85-0883 FRACTION 06A TEST CODE SW8010 NAME GC-HECD Halog. Vol. - SW846
Date & Time Collected 01/18/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

All results reported in ug/kg unless otherwise specified.

ND = not detected at detection limit of 1 ug/kg, unless otherwise specified.

CORPORATION

PAGE 26 Analytical Serv REPORT LAB # 85-01-087
RECEIVED: 01/22/85 Results by Sample

SAMPLE ID 85-0883 FRACTION 06A TEST CODE SW8020 NAME GC-PID Arom. Vol. - SW846
Date & Time Collected 01/18/85 Category

DATA FILE D DATE INJECTED 02/05/85 ANALYST RAA VERIFIED BY JSG
CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 2

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
1	Toluene	134000		1,2-Dichlorobenzene	ND
2	Ethyl Benzene	110000		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT.
SCAN = scan number or retention time on chromatogram.
All results reported in ug/kg unless otherwise specified.
ND = not detected at detection limit of 1 ug/kg, unless otherwise specified.

CORPORATION

PAGE 1 Analytical Serv REPORT LAB # 85-01-088

RECEIVED: 01/18/85 03/25/85 16:44:50

REPORT TO: Radian
81 4
Austin

ATTEN: Larry French

CLIENT: CARSWELL DO SAMPLES: 7
COMPANY: Carswell AFB
FACILITY:

WORK ID: soil site 11
TAKEN: JLM/PAW/LNF
TRANS TYPE: Fed Ex
P O #: 814-114-0e-42
INVOICE: under separate cover

PREPARED BY: Radian Analytical Services
8501 MoPac Blvd
P. O. Box 9948
Austin, Texas 78766

ATTEN:
PHONE: (512) 454-4797

CERTIFIED BY

CONTACT CONOVER

Detection limit for 8020 is 10 ug/kg; detection limit for 8020 is 250 ug/kg.

Footnotes and Comments

* Indicates a value less than 5 times the detection limit. Potential error for such low values ranges between 50 and 100%.

@ Indicates that spike recovery for this analysis on the specific matrix was not within acceptable limits indicating an interferent present.

SAMPLE IDENTIFICATION

01 85-0821
02 85-0822
03 85-0823 QA
04 85-0824
05 85-0825
06 85-0826
07 1102

Analytical Serv TEST CODES and NAMES used on this report

EP MET	RCRA Metals
HIRCRA	RCRA Herbicides
ONG IR	Oil and Grease, Infrared
PIRCRA	RCRA Pesticides
PHEN A	Total Phenolics
PREP W	Special Digestion Method
PREP X	Special Digestion Method
SW8010	GC-HECD Halog. Vol. - SW846
SW8020	GC-PID Arom. Vol. - SW846

CORPORATION

PAGE 2 Analytical Serv REPORT LAB # 85-01-088
RECEIVED: 01/18/85 RESULTS BY TEST

TEST CODE default units	Sample 01 (entered units)	Sample 02 (entered units)	Sample 03 (entered units)	Sample 04 (entered units)	Sample 05 (entered units)
ONG_IR mg/L	100 ug/g	2200 ug/g	<10 ug/g	<10 ug/g	<10 ug/g
PHEN_A mg/L	<.1 ug/g	<.1 ug/g	<.1 ug/g	<.1 ug/g	<.1 ug/g
PREP_W date complete	01/28/85	01/24/85	01/24/85	01/28/85	01/28/85
	01/24/85			01/28/85	01/28/85

TEST CODE default units	Sample 06 (entered units)	Sample 07 (entered units)
ONG_IR mg/L	<10 ug/g	<10 ug/g
PHEN_A mg/L	<.1 ug/g	<.1 ug/g
PREP_W date complete	01/28/85	01/28/85
PREP_X date complete	01/30/85	01/30/85

CORPORATION

PAGE 3 Analytical Serv REPORT LAB # 85-01-088
RECEIVED: 01/18/85 Results by Sample

SAMPLE ID 85-088 FRACTION 01A TEST CODE SW8010 NAME GC-HECD Halog. Vol. - SW846
Date & Time Collected 01/15/85 Category

DATA FILE A DATE INJECTED 01/23/85 ANALYST RAA VERIFIED BY JSG
CONC FACTOR INSTRUMENT a COMPOUNDS DETECTED 1

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Chloromethane	ND	1	Trichloroethene	24?
	Bromomethane	ND		Dibromochloromethane	ND
	Vinyl Chloride	ND		1,1,2-Trichloroethane	ND
	Chloroethane	ND		cis-1,3-Dichloropropene	ND
	Methylene Chloride	ND		2-Chloroethylvinyl Ether	ND
	Trichlorofluoromethane	ND		Bromoform	ND
	1,1-Dichloroethene	ND		1,1,2,2-Tetrachloroethane	ND
	1,1-Dichloroethane	ND		Tetrachloroethylene	ND
	trans-1,2-Dichloroethene	ND		Chlorobenzene	ND
	Chloroform	ND		1,3-Dichlorobenzene	ND
	1,2-Dichloroethane	ND		1,2-Dichlorobenzene	ND
	1,1,1-Trichloroethane	ND		1,4-Dichlorobenzene	ND
	Carbon Tetrachloride	ND			
	Bromodichloromethane	ND			
	1,2-Dichloropropane	ND			
	trans-1,3-Dichloropropene	ND			

CORPORATION

PAGE 4 Analytical Serv REPORT LAB # 85-01-088
RECEIVED: 01/18/85 Results by Sample Continued From Above

SAMPLE ID 85-0822 FRACTION 01A TEST CODE SW8010 NAME GC-HECD Haloq. Vol. - SW846
Date & Time Collected 01/15/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

All results reported in ug/kg unless otherwise specified.

ND = not detected at detection limit of 1 ug/kg, unless otherwise specified.

CORPORATION

PAGE 5 Analytical Serv REPORT LAB # 85-01-088
RECEIVED: 01/18/85 Results by Sample

SAMPLE ID 85-0822 FRACTION 01A TEST CODE SW8020 NAME GC-PID Arom. Vol. - SW846
Date & Time Collected 01/15/85 Category

DATA FILE D DATE INJECTED 02/05/85 ANALYST RAA VERIFIED BY JSG
CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3--Dichlorobenzene	ND
	Toluene	ND		1,2--Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4--Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT
SCAN = scan number or retention time on chromatogram.
All results reported in ug/kg unless otherwise specified
ND = not detected at detection limit of 1 ug/kg, unless otherwise specified.

CORPORATION

PAGE 6 Analytical Serv REPORT LAB # 85-01-088
RECEIVED: 01/18/85 Results by Sample

SAMPLE ID 85-0823 FRACTION 02A TEST CODE SW8010 NAME GC-HECD Halog. Vol. - SW846
Date & Time Collected 01/15/85 Category

DATA FILE A DATE INJECTED 01/23/85 ANALYST RAA VERIFIED BY JSG
CONC. FACTOR INSTRUMENT a COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Chloromethane	ND		Trichloroethene	ND
	Bromomethane	ND		Dibromochloromethane	ND
	Vinyl Chloride	ND		1,1,2-Trichloroethane	ND
	Chloroethane	ND		cis-1,3-Dichloropropene	ND
	Methylene Chloride	ND		2-Chloroethylvinyl Ether	ND
	Trichlorofluoromethane	ND		Bromoform	ND
	1,1-Dichloroethene	ND		1,1,2,2-Tetrachloroethane	ND
	1,1-Dichloroethane	ND		Tetrachloroethylene	ND
	trans-1,2-Dichloroethene	ND		Chlorobenzene	ND
	Chloroform	ND		1,3-Dichlorobenzene	ND
	1,2-Dichloroethane	ND		1,2-Dichlorobenzene	ND
	1,1,1-Trichloroethane	ND		1,4-Dichlorobenzene	ND
	Carbon Tetrachloride	ND			
	Bromodichloromethane	ND			
	1,2-Dichloropropane	ND			
	trans-1,3-Dichloropropene	ND			

CORPORATION

PAGE 7 Analytical Serv REPORT LAB # 85-01-088
RECEIVED: 01/18/85 Results by Sample Continued From Above

SAMPLE ID 85-0823 FRACTION 02A TEST CODE SW8010 NAME GC-HECD Haloq. Vol. - SW846
Date & Time Collected 01/15/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

All results reported in ug/kg unless otherwise specified.

ND = not detected at detection limit of 1 ug/kg, unless otherwise specified.

CORPORATION

PAGE 8 Analytical Serv REPORT LAB # 85-01-088
RECEIVED: 01/18/85 Results by Sample

SAMPLE ID 85-0823 FRACTION 02A TEST CODE SW8020 NAME GC-PID Arom. Vol. - SW846
Date & Time Collected 01/15/85 Category

DATA FILE D DATE INJECTED 02/05/85 ANALYST RAA VERIFIED BY JSG
CONC FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT
SCAN = scan number or retention time on chromatogram.
All results reported in ug/kg unless otherwise specified
ND = not detected at detection limit of 1 ug/kg, unless otherwise specified.

CORPORATION

PAGE 9 Analytical Serv REPORT LAB # 85-01-088
RECEIVED: 01/18/85 Results by Sample

SAMPLE ID 85-0823 GA FRACTION 03A TEST CODE SW8010 NAME GC-HECD Haloq. Vol. - SW846
Date & Time Collected 01/15/85 Category

DATA FILE A DATE INJECTED 01/23/85 ANALYST RAA VERIFIED BY JSG
CONC. FACTOR INSTRUMENT a COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Chloromethane	ND		Trichloroethene	ND
	Bromomethane	ND		Dibromochloromethane	ND
	Vinyl Chloride	ND		1,1,2-Trichloroethane	ND
	Chloroethane	ND		cis-1,3-Dichloropropene	ND
	Methylene Chloride	ND		2-Chloroethylvinyl Ether	ND
	Trichlorofluoromethane	ND		Bromoform	ND
	1,1-Dichloroethene	ND		1,1,2,2-Tetrachloroethane	ND
	1,1-Dichloroethane	ND		Tetrachloroethylene	ND
	trans-1,2-Dichloroethene	ND		Chlorobenzene	ND
	Chloroform	ND		1,3-Dichlorobenzene	ND
	1,2-Dichloroethane	ND		1,2-Dichlorobenzene	ND
	1,1,1-Trichloroethane	ND		1,4-Dichlorobenzene	ND
	Carbon Tetrachloride	ND			
	Bromodichloromethane	ND			
	1,2-Dichloropropane	ND			
	trans-1,3-Dichloropropene	ND			

CORPORATION

PAGE 10 Analytical Serv REPORT LAB # 85-01-088
RECEIVED: 01/18/85 Results by Sample Continued From Above

SAMPLE ID 85-0823 GP FRACTION 03A TEST CODE SW8010 NAME GC-HECD Haloq. Vol. - SW846
Date & Time Collected 01/15/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT

SCAN - scan number or retention time on chromatogram.

All results reported in ug/kg unless otherwise specified.

ND = not detected at detection limit of 1 ug/kg, unless otherwise specified.

CORPORATION

PAGE 11 Analytical Serv REPORT LAB # 85-01-088
RECEIVED: 01/18/85 Results by Sample

SAMPLE ID 85-0883 gA FRACTION 03A TEST CODE SW8020 NAME GC-PID Arom. Vol. - SW846
Date & Time Collected 01/15/85 Category

DATA FILE D DATE INJECTED 02/05/85 ANALYST RAA VERIFIED BY JSG
CONC FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND [illegible] on this report
SCAN = scan number of [illegible] on chromatogram
All results reported in [illegible] ug/kg unless otherwise specified.
ND = not detected at [illegible] limit of 2.5 ug/kg unless otherwise specified.

CORPORATION

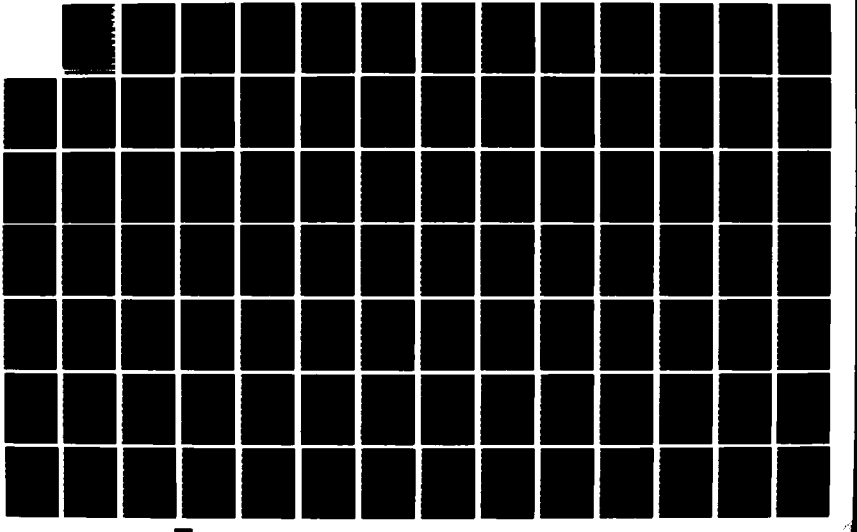
PAGE 12 Analytical Serv REPORT LAB # 85-01-088
RECEIVED: 01/18/85 Results by Sample

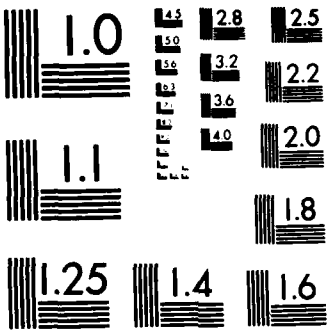
SAMPLE ID 85-0824 FRACTION 04A TEST CODE SW8010 NAME GC-HECD Haloq. Vol. - SW846
Date & Time Collected 01/15/85 Category

DATA File A DATE INJECTED 01/24/85 ANALYST MCL VERIFIED BY JSG
CONC FACTOR INSTRUMENT a COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Chloromethane	ND		Trichloroethene	ND
	Bromomethane	ND		Dibromochloromethane	ND
	Vinyl Chloride	ND		1,1,2-Trichloroethane	ND
	Chloroethane	ND		cis-1,3-Dichloropropene	ND
	Methylene Chloride	ND		2-Chloroethylvinyl Ether	ND
	Trichlorofluoromethane	ND		Bromoform	ND
	1,1-Dichloroethene	ND		1,1,2,2-Tetrachloroethane	ND
	1,1-Dichloroethane	ND		Tetrachloroethylene	ND
	trans-1,2-Dichloroethene	ND		Chlorobenzene	ND
	Chloroform	ND		1,3-Dichlorobenzene	ND
	1,2-Dichloroethane	ND		1,2-Dichlorobenzene	ND
	1,1,1-Trichloroethane	ND		1,4-Dichlorobenzene	ND
	Carbon Tetrachloride	ND			
	Bromodichloromethane	ND			
	1,2-Dichloropropane	ND			
	trans-1,3-Dichloropropene	ND			

AD-A174 196 INSTALLATION RESTORATION PROGRAM PHASE II 3/9
CONFIRMATION/QUANTIFICATION STAGE 1 VOLUME 2 APPENDIX A
(U) RADIAN CORP AUSTIN TX OCT 86 F33615-84-D-4402
UNCLASSIFIED F/G 13/2 NL





MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

CORPORATION

PAGE 13 Analytical Serv REPORT LAB # 85-01-088
RECEIVED: 01/18/85 Results by Sample Continued From Above

SAMPLE ID 85-0824 FRACTION Q4A TEST CODE SW8010 NAME GC-HECD Haloq. Vol. - SW846
Date & Time Collected 01/15/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

All results reported in ug/kg unless otherwise specified.

ND = not detected at detection limit of 1 ug/kg, unless otherwise specified.

CORPORATION

PAGE 14 Analytical Serv REPORT LAB # 85-01-088
RECEIVED: 01/18/85 Results by Sample

SAMPLE ID 85-0824 FRACTION Q4A TEST CODE SW8020 NAME GC-PID Arom. Vol. - SW846
Date & Time Collected 01/15/85 Category

DATA FILE D DATE INJECTED 02/06/85 ANALYST MCL VERIFIED BY JSG
CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT
SCAN = scan number or retention time on chromatogram.
All results reported in ug/kg unless otherwise specified
ND = not detected at detection limit of 1 ug/kg, unless otherwise specified.

CORPORATION

PAGE 15 Analytical Serv REPORT LAB # 85-01-088
RECEIVED: 01/18/85 Results by Sample

SAMPLE ID 85-083a FRACTION 05A TEST CODE SW8010 NAME GC-HECD Haloq. Vol. - SW846
Date & Time Collected 01/15/85 Category

DATA FILE A DATE INJECTED 01/24/85 ANALYST MCL VERIFIED BY JSG
CONC FACTOR INSTRUMENT a COMPOUNDS DETECTED 1

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Chloromethane	ND	1	Trichloroethene	257
	Bromomethane	ND		Dibromochloromethane	ND
	Vinyl Chloride	ND		1,1,2-Trichloroethane	ND
	Chloroethane	ND		cis-1,3-Dichloropropene	ND
	Methylene Chloride	ND		2-Chloroethylvinyl Ether	ND
	Trichlorofluoromethane	ND		Bromoform	ND
	1,1-Dichloroethene	ND		1,1,2,2-Tetrachloroethane	ND
	1,1-Dichloroethane	ND		Tetrachloroethylene	ND
	trans-1,2-Dichloroethene	ND		Chlorobenzene	ND
	Chloroform	ND		1,3-Dichlorobenzene	ND
	1,2-Dichloroethane	ND		1,2-Dichlorobenzene	ND
	1,1,1-Trichloroethane	ND		1,4-Dichlorobenzene	ND
	Carbon Tetrachloride	ND			
	Bromodichloromethane	ND			
	1,2-Dichloropropane	ND			
	trans-1,3-Dichloropropene	ND			

CORPORATION

PAGE 16 Analytical Serv REPORT LAB # 85-01-088
RECEIVED: 01/18/85 Results by Sample Continued From Above

SAMPLE ID 85-083b FRACTION 05A TEST CODE SW8010 NAME GC-HECD Halog. Vol. - SW846
Date & Time Collected 01/15/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

All results reported in ug/kg unless otherwise specified.

ND = not detected at detection limit of 1 ug/kg, unless otherwise specified.

CORPORATION

PAGE 17 Analytical Serv REPORT LAB # 85-01-088
RECEIVED: 01/18/85 Results by Sample

SAMPLE ID 85-083b FRACTION 05A TEST CODE SW8020 NAME GC-PID Arom. Vol.- SW846
Date & Time Collected 01/15/85 Category

DATA FILE D DATE INJECTED 02/06/85 ANALYST MCL VERIFIED BY JSG
CONC FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT
SCAN - scan number or retention time on chromatogram
All results reported in ug/kg unless otherwise specified
ND - not detected at detection limit of 1 ug/kg, unless otherwise specified.

CORPORATION

PAGE 18 Analytical Serv REPORT LAB # 85-01-088
RECEIVED: 01/18/85 Results by Sample

SAMPLE ID 85-0861 FRACTION 06C TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 01/16/85 Category

DATE ANALYZED 02/05/85 VERIFIED BY GMC

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	<.18	AS	Arsenic	<3
BA	Barium	<.23	HG	Mercury	0.21
CD	Cadmium	<.20	PB	Lead	<4
CR	Chromium	2.0	SE	Selenium	<4

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/g unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

CORPORATION

PAGE 19 Analytical Serv REPORT LAB # 85-01-088
RECEIVED: 01/18/85 Results by Sample

SAMPLE ID 85-0861 FRACTION 06D TEST CODE HIRCRA NAME RCRA Herbicides
Date & Time Collected 01/16/85 Category

DATE EXTRACTED 02/21/85 DATE INJECTED 03/08/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER HERBICIDES	RESULT	DET. LIMIT
2,4-D	ND	0.05			
2,4,5-TP (Silvex)	ND	0.02			
2,4,5-T	ND	0.02			

NOTES AND DEFINITIONS FOR THIS REPORT.
ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

SAMPLE ID 85-0861 FRACTION 06D TEST CODE PIRCRA NAME RCRA Pesticides
Date & Time Collected 01/16/85 Category

DATE EXTRACTED 02/25/85 DATE INJECTED 03/01/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER PESTICIDES	RESULT	DET. LIMIT
Lindane	ND	0.1			
Endrin	ND	0.1			
Methoxychlor	ND	1.0			
Toxaphene	ND	1.0	reported in ug/kg		
Chlordane	ND	1.0			

NOTES AND DEFINITIONS FOR THIS REPORT

SAMPLE ID 85-0861 FRACTION Q&D TEST CODE PIRCRA NAME RCRA Pesticides
Date & Time Collected 01/16/85 Category

ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

CORPORATION

PAGE 21 Analytical Serv REPORT LAB # 85-01-088
RECEIVED: 01/18/85 Results by Sample

SAMPLE ID 85-0851 FRACTION Q6A TEST CODE SW8010 NAME GC-HECD Haloq. Vol. - SW846
Date & Time Collected 01/16/85 Category

DATA FILE A DATE INJECTED 01/24/85 ANALYST MCL VERIFIED BY JSG
CONC FACTOR INSTRUMENT a COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Chloromethane	ND		Trichloroethene	ND
	Bromomethane	ND		Dibromochloromethane	ND
	Vinyl Chloride	ND		1,1,2-Trichloroethane	ND
	Chloroethane	ND		cis-1,3-Dichloropropene	ND
	Methylene Chloride	ND		2-Chloroethylvinyl Ether	ND
	Trichlorofluoromethane	ND		Bromoform	ND
	1,1-Dichloroethene	ND		1,1,2,2-Tetrachloroethane	ND
	1,1-Dichloroethane	ND		Tetrachloroethylene	ND
	trans-1,2-Dichloroethene	ND		Chlorobenzene	ND
	Chloroform	ND		1,3-Dichlorobenzene	ND
	1,2-Dichloroethane	ND		1,2-Dichlorobenzene	ND
	1,1,1-Trichloroethane	ND		1,4-Dichlorobenzene	ND
	Carbon Tetrachloride	ND			
	Bromodichloromethane	ND			
	1,2-Dichloropropane	ND			
	trans-1,3-Dichloropropene	ND			

CORPORATION

PAGE 22 Analytical Serv REPORT LAB # 85-01-088
RECEIVED: 01/18/85 Results by Sample Continued From Above

SAMPLE ID 85-0861 FRACTION 06A TEST CODE SW8010 NAME GC-HECD Haloq. Vol. - SW846
Date & Time Collected 01/16/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

All results reported in ug/kg unless otherwise specified.

ND = not detected at detection limit of 1 ug/kg, unless otherwise specified.

CORPORATION

PAGE 23 Analytical Serv REPORT LAB # 85-01-088
RECEIVED: 01/18/85 Results by Sample

SAMPLE ID 85-0861 FRACTION 06A TEST CODE SW8020 NAME GC-PID Arom. Vol. - SW846
Date & Time Collected 01/16/85 Category

DATA FILE D DATE INJECTED 02/06/85 ANALYST MCL VERIFIED BY JSG
CONC FACTOR 1 INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT
SCAN = scan number or retention time on chromatogram
All results reported in ug/kg unless otherwise specified
ND = not detected at detection limit of 1 ug/kg unless otherwise specified.

CORPORATION

PAGE 34 Analytical Serv REPORT LAB # 85-01-088
RECEIVED: 01/18/85 Results by Sample

SAMPLE ID 1102 FRACTION O/B TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 01/15/85 Category

DATE ANALYZED 02/05/85 VERIFIED BY GMC

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	3.1	AS	Arsenic	14
BA	Barium	< 23	HG	Mercury	0.14
CD	Cadmium	< 23	PB	Lead	<4
CR	Chromium	3.0	SE	Selenium	9

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/g unless otherwise specified.
NA = not analyzed
< = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

CORPORATION

PAGE 25 Analytical Serv REPORT LAB # 85-01-088
RECEIVED: 01/18/85 Results by Sample

SAMPLE ID 11C2 FRACTION 07C TEST CODE H1RCRA NAME RCRA Herbicides
Date & Time Collected 01/15/85 Category

DATE EXTRACTED 02/21/85 DATE INJECTED 03/08/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER HERBICIDES	RESULT	DET. LIMIT
2,4-D	ND	0.05			
2,4,5-TP (Silvex)	ND	0.02			
2,4,5-T	ND	0.02			

NOTES AND DEFINITIONS FOR THIS REPORT.
ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

SAMPLE ID 11C2 FRACTION 07C TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 01/15/85 Category

DATE EXTRACTED 02/2a/85 DATE INJECTED 03/01/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER PESTICIDES	RESULT	DET. LIMIT
Lindane	ND	0.1			
Endrin	ND	0.1			
Methoxychlor	ND	1.0			
Toxaphene	ND	1.0	reported in ug/kg		
Chlordane	ND	1.0			

NOTES AND DEFINITIONS FOR THIS REPORT

CORPORATION

PAGE 26 Analytical Serv REPORT LAB # 85-01-088
RECEIVED 01/18/85 Results by Sample Continued From Above

SAMPLE ID 11C2 FRACTION O/C TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 01/15/85 Category

ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

CORPORATION

PAGE 27 Analytical Serv REPORT LAB # 85-01-088
RECEIVED: 01/18/85 Results by Sample

SAMPLE ID 1102 FRACTION 07A TEST CODE SW8010 NAME GC-HECD Haloq. Vol. - SW846
Date & Time Collected 01/15/85 Category

DATA FILE A DATE INJECTED 01/24/85 ANALYST MCL VERIFIED BY JSG
CONC FACTOR INSTRUMENT a COMPOUNDS DETECTED 1

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Chloromethane	ND	1	Trichloroethene	251
	Bromomethane	ND		Dibromochloromethane	ND
	Vinyl Chloride	ND		1,1,2-Trichloroethane	ND
	Chloroethane	ND		cis-1,3-Dichloropropene	ND
	Methylene Chloride	ND		2-Chloroethylvinyl Ether	ND
	Trichlorofluoromethane	ND		Bromoform	ND
	1,1-Dichloroethene	ND		1,1,2,2-Tetrachloroethane	ND
	1,1-Dichloroethane	ND		Tetrachloroethylene	ND
	trans-1,2-Dichloroethene	ND		Chlorobenzene	ND
	Chloroform	ND		1,3-Dichlorobenzene	ND
	1,2-Dichloroethane	ND		1,2-Dichlorobenzene	ND
	1,1,1-Trichloroethane	ND		1,4-Dichlorobenzene	ND
	Carbon Tetrachloride	ND			
	Bromodichloromethane	ND			
	1,2-Dichloropropane	ND			
	trans-1,3-Dichloropropene	ND			

CORPORATION

PAGE 28 Analytical Serv REPORT LAB # 85-01-088
RECEIVED: 01/18/85 Results by Sample Continued From Above

SAMPLE ID 11C2 FRACTION Q7A TEST CODE SW8010 NAME GC-HECD Haloq. Vol. - SW846
Date & Time Collected 01/15/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

All results reported in ug/kg unless otherwise specified.

ND = not detected at detection limit of 1 ug/kg, unless otherwise specified.

CORPORATION

PAGE 39 Analytical Serv REPORT LAB # 85-01-088
RECEIVED: 01/18/85 Results by Sample

SAMPLE ID 1102 FRACTION 07A TEST CODE SW8020 NAME GC-PID Arom. Vol. - SW846
Date & Time Collected 01/15/85 Category

DATA FILE D DATE INJECTED 02/04/85 ANALYST MCL VERIFIED BY JSG
CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT
SCAN = scan number of retention time on chromatogram
All results reported in ug/kg unless otherwise specified
ND = not detected at the stated limit of 1 ug/kg unless otherwise specified.

CORPORATION

PAGE 1 Analytical Serv REPORT LAB # 85-01-089
RECEIVED: 01/22/85 03/12/85 11:49:05

REPORT TO: Radian
Bl 4
Austin

ATTEN: Larry French

CLIENT: CARSWELL DOE SAMPLES: 7
COMPANY: Carswell AFB
FACILITY:

WORK ID: water sites 16 and 17
TAKEN: JBC
TRANS: Fed Ex
TYPE:
P.O. #: 214-114-06-44
INVOICE: under separate cover

PREPARED BY: Radian Analytical Services
8501 MoPac Blvd.
P.O. Box 9948
Austin, Texas 78766
ATTEN:
PHONE: (512) 454-4797

CERTIFIED BY

CONTACT CONOVER

Sediment present in preserved (HNO3 pH<2) metals splits. 602 split for -01 broken during storage. 602 splits for -02 and -03 high in aromatic compounds; quantitation precluded by interferences.

Footnotes and Comments

* Indicates a value less than 5 times the detection limit. Potential error for such low values ranges between 50 and 100%.

@ Indicates that spike recovery for this analysis on the specific matrix was not within acceptable limits indicating an interferent present.

SAMPLE IDENTIFICATION

01 85-0887
02 85-0890
03 85-0891
04 85-0894
05 85-0897
06 85-0898
07 85-0899

Analytical Serv TEST CODES and NAMES used on this report

EP MET	RCRA Metals
GC 601	EPA Method 601/GC
GC 602	EPA Method 602/GC
ONG IR	Oil and Grease, Infrared
TOC	Total Organic Carbon
TOX 1	TOX Single Analysis

CORPORATION

PAGE 2 Analytical Serv REPORT LAB # 85-01-089
RECEIVED: 01/22/85 RESULTS BY TEST

TEST CODE default units	Sample 01 (entered units)	Sample 02 (entered units)	Sample 03 (entered units)	Sample 04 (entered units)	Sample 05 (entered units)
ONG_IR mg/L	940	<1	7100	<1	<1
TOC mg/L	230	1	420	190	100
TOX_1 mg/L	0.01	<.01	<.01	<.01	<.01

TEST CODE default units	Sample 06 (entered units)	Sample 07 (entered units)
ONG_IR mg/L	5200	10,000
TOC mg/L	70	60
TOX_1 mg/L	0.12	<.01

CORPORATION

PAGE 3 Analytical Serv REPORT LAB # 85-01-089
RECEIVED: 01/22/85 Results by Sample

SAMPLE ID 85-0889 FRACTION Q1D TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 01/19/85 Category

DATE ANALYZED 02/18/85 VERIFIED BY DLH

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	< .002	AS	Arsenic	< .060
BA	Barium	1.3	HG	Mercury	0.0004
CD	Cadmium	< .002	PB	Lead	< .080
CR	Chromium	< .005	SE	Selenium	< .080

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/ml unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

CORPORATION

PAGE 4 Analytical Serv REPORT LAB # 85-01-089
RECEIVED: 01/22/85 Results by Sample

SAMPLE ID 85-0894 FRACTION 01E TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 01/19/85 Category

DATA FILE A DATE INJECTED 01/25/85 ANALYST RAA VERIFIED BY JSG
CONC FACTOR INSTRUMENT a COMPOUNDS DETECTED 2

SCAN	COMPOUND	RESULT
	Chloromethane	ND
	Bromomethane	ND
	Vinyl Chloride	ND
	Chloroethane	ND
	Methylene Chloride	ND
1	Trichlorofluoromethane	4.2
	1,1-Dichloroethene	ND
	1,1-Dichloroethane	ND
2	trans-1,2-Dichloroethene	0.1
	Chloroform	ND
	1,2-Dichloroethane	ND
	1,1,1-Trichloroethane	ND
	Carbon Tetrachloride	ND
	Bromodichloromethane	ND
	1,2-Dichloropropane	ND
	trans-1,3-Dichloropropene	ND

SCAN	COMPOUND	RESULT
	Trichloroethene	ND
	Dibromochloromethane *	ND
	1,1,2-Trichloroethane *	ND
	cis-1,3-Dichloropropene *	ND
	2-Chloroethylvinyl Ether	ND
	Bromoform	ND
	1,1,2,2-Tetrachloroethane #	ND
	Tetrachloroethylene #	ND
	Chlorobenzene	ND
	1,3-Dichlorobenzene	ND
	1,2-Dichlorobenzene	ND
	1,4-Dichlorobenzene	ND

CORPORATION

PAGE 5 Analytical Serv REPORT LAB # 85-01-089
RECEIVED: 01/22/85 Results by Sample Continued From Above

SAMPLE ID 85-0889 FRACTION Q1E TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 01/19/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

CORPORATION

PAGE 6 Analytical Serv REPORT LAB # 85-01-089
RECEIVED: 01/22/85 Results by Sample

SAMPLE ID 85-0890 FRACTION 02D TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 01/19/85 Category

DATE ANALYZED 02/18/85 VERIFIED BY DLH

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	< .002	AS	Arsenic	< .060
BA	Barium	0.86	HG	Mercury	0.0006
CD	Cadmium	< .002	PB	Lead	< .080
CR	Chromium	< .005	SE	Selenium	< .080

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/ml unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

CORPORATION

PAGE 7 Analytical Serv REPORT LAB # 85-01-089
RECEIVED: 01/22/85 Results by Sample

SAMPLE ID 85-0890 FRACTION 02E TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 01/19/85 Category

DATA FILE A DATE INJECTED 01/25/85 ANALYST MCL VERIFIED BY JSG
CONC FACTOR INSTRUMENT a COMPOUNDS DETECTED 1

SCAN	COMPOUND	RESULT
	Chloromethane	ND
	Bromomethane	ND
	Vinyl Chloride	ND
	Chloroethane	ND
	Methylene Chloride	ND
	Trichlorofluoromethane	ND
	1,1-Dichloroethene	ND
	1,1-Dichloroethane	ND
	trans-1,2-Dichloroethene	ND
	Chloroform	ND
	1,2-Dichloroethane	ND
1	1,1,1-Trichloroethane	2.9
	Carbon Tetrachloride	ND
	Bromodichloromethane	ND
	1,2-Dichloropropane	ND
	trans-1,3-Dichloropropene	ND

SCAN	COMPOUND	RESULT
	Trichloroethene	ND
	Dibromochloromethane *	ND
	1,1,2-Trichloroethane *	ND
	cis-1,3-Dichloropropene *	ND
	2-Chloroethylvinyl Ether	ND
	Bromoform	ND
	1,1,2,2-Tetrachloroethane #	ND
	Tetrachloroethylene #	ND
	Chlorobenzene	ND
	1,3-Dichlorobenzene	ND
	1,2-Dichlorobenzene	ND
	1,4-Dichlorobenzene	ND

CORPORATION

PAGE 8 Analytical Serv REPORT LAB # 85-01-089
RECEIVED: 01/22/85 Results by Sample Continued From Above

SAMPLE ID 85-0890 FRACTION 02E TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 01/19/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

CORPORATION

PAGE 9 Analytical Serv REPORT LAB # 85-01-089
RECEIVED: 01/22/85 Results by Sample

SAMPLE ID 85-0890 FRACTION 02F TEST CODE GC 602 NAME EPA Method 602/GC
Date & Time Collected 01/19/85 Category

DATA FILE D DATE INJECTED 02/11/85 ANALYST MCL VERIFIED BY JSG
CONC FACTOR INSTRUMENT d COMPOUNDS DETECTED 6

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	!		1,3-Dichlorobenzene	!
	Toluene	presnt		1,2-Dichlorobenzene	!
	Ethyl Benzene	!		1,4-Dichlorobenzene	!

NOTES AND DEFINITIONS FOR THIS REPORT
SCAN = scan number or retention time on chromatogram.
All results reported in _____ unless otherwise specified.
ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79).

CORPORATION

PAGE 10 Analytical Serv REPORT LAB # 85-01-089
RECEIVED: 01/22/85 Results by Sample

SAMPLE ID 85-0891 FRACTION 03D TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 01/19/85 Category

DATE ANALYZED 02/18/85 VERIFIED BY DLH

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	< .002	AS	Arsenic	< .060
BA	Barium	1.2	HG	Mercury	0.0004
CD	Cadmium	< .002	PB	Lead	< .080
CR	Chromium	< .005	SE	Selenium	< .080

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/ml unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

CORPORATION

PAGE 11 Analytical Serv REPORT LAB # 85-01-089
RECEIVED: 01/22/85 Results by Sample

SAMPLE ID 85-0891 FRACTION 03E TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 01/19/85 Category

DATA FILE A DATE INJECTED 01/25/85 ANALYST MCL VERIFIED BY JSG
CONC FACTOR INSTRUMENT a COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT
	Chloromethane	ND
	Bromomethane	ND
	Vinyl Chloride	ND
	Chloroethane	ND
	Methylene Chloride	ND
	Trichlorofluoromethane	ND
	1,1-Dichloroethene	ND
	1,1-Dichloroethane	ND
	trans-1,2-Dichloroethene	ND
	Chloroform	ND
	1,2-Dichloroethane	ND
	1,1,1-Trichloroethane	ND
	Carbon Tetrachloride	ND
	Bromodichloromethane	ND
	1,2-Dichloropropane	ND
	trans-1,3-Dichloropropene	ND

SCAN	COMPOUND	RESULT
	Trichloroethene	ND
	Dibromochloromethane *	ND
	1,1,2-Trichloroethane *	ND
	cis-1,3-Dichloropropene *	ND
	2-Chloroethylvinyl Ether	ND
	Bromoform	ND
	1,1,2,2-Tetrachloroethane #	ND
	Tetrachloroethylene #	ND
	Chlorobenzene	ND
	1,3-Dichlorobenzene	ND
	1,2-Dichlorobenzene	ND
	1,4-Dichlorobenzene	ND

CORPORATION

PAGE 12 Analytical Serv REPORT LAB # 85-01-089
RECEIVED: 01/22/85 Results by Sample Continued From Above

SAMPLE ID 85-0891 FRACTION Q3E TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 01/19/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

CORPORATION

PAGE 13 Analytical Serv REPORT LAB # 85-01-089
RECEIVED: 01/22/85 Results by Sample

SAMPLE ID 85-0891 FRACTION 03F TEST CODE GC 602 NAME EPA Method 602/GC
Date & Time Collected 01/19/85 Category

DATA FILE B DATE INJECTED 02/11/85 ANALYST MCL VERIFIED BY JSG
CONC FACTOR INSTRUMENT d COMPOUNDS DETECTED 6

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	!		1,3-Dichlorobenzene	!
	Toluene	!		1,2-Dichlorobenzene	!
	Ethyl Benzene	!		1,4-Dichlorobenzene	!

NOTES AND DEFINITIONS FOR THIS REPORT
SCAN = scan number or retention time on chromatogram.
All results reported in _____ unless otherwise specified.
ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79).

FRACTION AND TEST CODES FOR WORK NOT REPORTED ELSEWHERE

01F : LOG_IN

CORPORATION

PAGE 1 Analytical Serv REPORT LAB # 85-01-100
RECEIVED: 01/23/85 02/12/85 15:12:29

REPORT TO: Radian
B1 4
Austin

ATTEN: Larry French

CLIENT: CARSWELL DO6 SAMPLES: 4
COMPANY: Carswell AFB
FACILITY:

PREPARED BY: Radian Analytical Services
8501 MoPac Blvd
P.O. Box 9948
Austin, Texas 78766

ATTEN:
PHONE: (512) 454-4797

CERTIFIED BY

CONTACT CONOVER

WORK ID: site 17 water
TAKEN: JBC
TRANS: Fed Ex
TYPE:
P O #: 214-114-06-44
INVOICE: under separate cover

Footnotes and Comments

* Indicates a value less than 5 times the detection limit. Potential error for such low values ranges between 50 and 100%.

@ Indicates that spike recovery for this analysis on the specific matrix was not within acceptable limits indicating an interferent present.

SAMPLE IDENTIFICATION

01 85-0903
02 85-0904
03 85-0908
04 85-0909

Analytical Serv TEST CODES and NAMES used on this report

ONG IR Oil and Grease, Infrared
TOC Total Organic Carbon
TOX 1 TOX Single Analysis

CORPORATION

PAGE 3 Analytical Serv REPORT LAB # 85-01-100
RECEIVED: 01/23/85 Results by Sample

SAMPLE ID 85-0903 SAMPLE # 01 FRACTIONS: A, B, C
Date & Time Collected 01/22/85 Category

ONG IR 31,000 mg/L TOC 44 mg/L TOX 1 < .01 mg/L

SAMPLE ID 85-0904 SAMPLE # 02 FRACTIONS: A, B, C
Date & Time Collected 01/22/85 Category

ONG IR <1 mg/L TOC 55 mg/L TOX 1 < .01 mg/L

SAMPLE ID 85-0908 SAMPLE # 03 FRACTIONS: A, B, C
Date & Time Collected 01/22/85 Category

ONG IR <1 mg/L TOC 77 mg/L TOX 1 0.01 mg/L

SAMPLE ID 85-0909 SAMPLE # 04 FRACTIONS: A, B, C
Date & Time Collected 01/22/85 Category

ONG IR <1 mg/L TOC 100 mg/L TOX 1 0.01 mg/L

CORPORATION

PAGE 1 Analytical Serv REPORT LAB # 85-01-101

RECEIVED: 01/23/85 01/31/85 11:49:46

REPORT TO: Radian
Bl. 4
Austin

ATTEN: Larry French

CLIENT: CARSWELL DO6 SAMPLES: 6
COMPANY: Carswell AFB
FACILITY:

PREPARED BY: Radian Analytical Services
8501 MoPac Blvd.
P.O. Box 9948
Austin, Texas 78766

ATTEN:
PHONE: (512) 454-4797

CERTIFIED BY

CONTACT: CONOVER

WORK ID: site 17 soil
TAKEN: JBC
TRANS TYPE: Fed Ex
P.O. #: 214-114-06-42
INVOICE: under separate cover

Footnotes and Comments

* Indicates a value less than 5 times the detection limit. Potential error for such low values ranges between 50 and 100%.

@ Indicates that spike recovery for this analysis on the specific matrix was not within acceptable limits indicating an interferent present.

SAMPLE IDENTIFICATION

01 85-0900
02 85-0901
03 85-0902
04 85-0905
05 85-0906
06 85-0907

Analytical Serv TEST CODES and NAMES used on this report

ONG IR Oil and Grease, Infrared
PREP W Special Digestion Method

CORPORATION

PAGE 2 Analytical Serv REPORT LAB # 85-01-101
RECEIVED: 01/23/85 Results by Sample

SAMPLE ID 85-0900 SAMPLE # 01 FRACTIONS: A
Date & Time Collected 01/22/85 Category

ONG_IR 1300 ug/g PREP_W 01/28/85 date complete

SAMPLE ID 85-0901 SAMPLE # 02 FRACTIONS: A
Date & Time Collected 01/22/85 Category

ONG_IR 170 ug/g PREP_W 01/28/85 date complete

SAMPLE ID 85-0902 SAMPLE # 03 FRACTIONS: A
Date & Time Collected 01/22/85 Category

ONG_IR <10 ug/g PREP_W 01/28/85 date complete

SAMPLE ID 85-0905 SAMPLE # 04 FRACTIONS: A
Date & Time Collected 01/22/85 Category

ONG_IR 170 ug/g PREP_W 01/28/85 date complete

CORPORATION

PAGE 3 Analytical Serv REPORT LAB # 85-01-101
RECEIVED: 01/23/85 Results by Sample

SAMPLE ID 85-0906 SAMPLE # 05 FRACTIONS: A
Date & Time Collected 01/22/85 Category

ONG_IR 170 ug/g PREP_W 01/28/85 date complete

SAMPLE ID 85-0907 SAMPLE # 06 FRACTIONS: A
Date & Time Collected 01/22/85 Category

ONG_IR <10 ug/g PREP_W 01/28/85 date complete

CORPORATION

PAGE 1 Analytical Serv REPORT LAB # 85-01-134
RECEIVED: 01/22/85 04/22/85 00:22:57

REPORT TO: Radian
Bl 4
Austin

ATTEN: Larry French

CLIENT: CARSWELL DO6 SAMPLES: 9
COMPANY: Carswell AFB
FACILITY:

WORK ID: soil site 7
TAKEN: JC, JM, LF
TRANS TYPE: Fed Ex
P.O. #: 214-114-06-42
INVOICE: under separate cover

PREPARED BY: Radian Analytical Services
8501 MoPac Blvd.
P.O. Box 9948
Austin, Texas 78766
ATTEN:
PHONE: (512) 454-4797

CERTIFIED BY

CONTACT CONOVER

Detection limits for 8010 and 8020 are 10 ug/kg and 250 ug/kg, respectively.

Footnotes and Comments

* Indicates a value less than 5 times the detection limit. Potential error for such low values ranges between 50 and 100%.

@ Indicates that spike recovery for this analysis on the specific matrix was not within acceptable limits indicating an interferent present.

SAMPLE IDENTIFICATION

01	85-0876
02	85-0877
03	85-0878
04	85-0884
05	85-0885
06	85-0886
07	85-0887
08	85-0887 QC
09	85-0888

Analytical Serv TEST CODES and NAMES used on this report

DRY WT	Dry weight of solid sample
EP MET	RCRA Metals
EX 509	Extraction only-5098 Herb.
EX 608	Extraction only - 608
H1RCRA	RCRA Herbicides
ONG IR	Oil and Grease, Infrared
P1RCRA	RCRA Pesticides
PHEN A	Total Phenolics
PREP W	Special Digestion Method
PREP X	Special Digestion Method
SW8010	GC-HECD Halog. Vol. - SW846
SW8020	GC-PID Arom. Vol. - SW846

CORPORATION

RECEIVED: 01/22/85 RESULTS BY TEST

TEST CODE default units	Sample 01 (entered units)	Sample 02 (entered units)	Sample 03 (entered units)	Sample 04 (entered units)	Sample 05 (entered units)
DRY_WT % moisture	11	12	33	11	15
EX_509 date complete	02/20/85	02/20/85	02/20/85	02/20/85	02/20/85
EX_608 date complete	02/22/85	02/22/85	02/22/85	02/22/85	02/22/85
ONG_IR mg/L	<10 ug/g	85 ug/g	<10 ug/g	130 ug/g	84 ug/g
PHEN_A mg/L	<.1 ug/g	<.1 ug/g	<.1 ug/g	<.1 ug/g	<.1 ug/g
PREP_W date complete	02/01/85	02/01/85	02/01/85	02/01/85	02/01/85
PREP_X date complete	01/30/85	01/30/85	01/30/85	01/30/85	01/30/85

TEST CODE default units	Sample 06 (entered units)	Sample 07 (entered units)	Sample 08 (entered units)	Sample 09 (entered units)
DRY_WT % moisture	16	15	16	14
EX_509 date complete	02/21/85	02/21/85	02/21/85	02/21/85
EX_608 date complete	02/22/85	02/22/85	02/22/85	02/22/85
ONG_IR mg/L	76 ug/g	210 ug/g	68 ug/g	71 ug/g
PHEN_A mg/L	<.1 ug/g	<.1 ug/g	<.1 ug/g	<.1 ug/g

CORPORATION

PAGE 3 Analytical Serv REPORT LAB # 85-01-134
RECEIVED: 01/22/85 RESULTS BY TEST CONTINUED FROM ABOVE

PREP_W date complete	02/01/85	02/01/85	02/01/85	02/01/85
PREP_X date complete	01/30/85	01/30/85	01/30/85	01/30/85

CORPORATION

PAGE 4 Analytical Serv REPORT LAB # 85-01-134
RECEIVED: 01/22/85 Results by Sample

SAMPLE ID 85-0876 FRACTION 01B TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 01/18/85 Category

DATE ANALYZED 02/05/85 VERIFIED BY DLH

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	1.0	AS	Arsenic	<3
BA	Barium	48	HG	Mercury	0.06
CD	Cadmium	<.39	PB	Lead	8
CR	Chromium	5.7	SE	Selenium	12

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/g unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

CORPORATION

PAGE 5 Analytical Serv REPORT LAB # 85-01-134
RECEIVED: 01/22/85 Results by Sample

SAMPLE ID 85-0876 FRACTION 01C TEST CODE H1RCRA NAME RCRA Herbicides
Date & Time Collected 01/18/85 Category

DATE EXTRACTED 02/20/85 DATE INJECTED 03/08/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER HERBICIDES	RESULT	DET. LIMIT
2,4-D	ND	.2			
2,4,5-TP (Silvex)	ND	.2			
2,4,5-T	ND	.2			

NOTES AND DEFINITIONS FOR THIS REPORT.
ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

SAMPLE ID 85-0876 FRACTION 01C TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 01/18/85 Category

DATE EXTRACTED 02/22/85 DATE INJECTED 03/01/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER PESTICIDES	RESULT	DET. LIMIT
Lindane	ND	0.1			
Endrin	ND	0.1			
Methoxychlor	ND	1.0			
Toxaphene	ND	1.0	reported in ug/kg		
Chlordane	ND	1.0			

NOTES AND DEFINITIONS FOR THIS REPORT.

CORPORATION

PAGE 6 Analytical Serv REPORT LAB # 85-01-134
RECEIVED: 01/22/85 Results by Sample Continued From Above

SAMPLE ID 85-0876 FRACTION 01C TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 01/18/85 Category

ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

CORPORATION

PAGE 7 Analytical Serv REPORT LAB # 85-01-134
RECEIVED: 01/22/85 Results by Sample

SAMPLE ID 85-0876 FRACTION 01A TEST CODE SW8010 NAME GC-HECD Haloq. Vol. - SW846
Date & Time Collected 01/18/85 Category

DATA FILE A DATE INJECTED 02/06/85 ANALYST MCL VERIFIED BY JSG
CONC. FACTOR INSTRUMENT a COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT
	Chloromethane	ND
	Bromomethane	ND
	Vinyl Chloride	ND
	Chloroethane	ND
	Methylene Chloride	ND
	Trichlorofluoromethane	ND
	1,1-Dichloroethene	ND
	1,1-Dichloroethane	ND
	trans-1,2-Dichloroethene	ND
	Chloroform	ND
	1,2-Dichloroethane	ND
	1,1,1-Trichloroethane	ND
	Carbon Tetrachloride	ND
	Bromodichloromethane	ND
	1,2-Dichloropropane	ND
	trans-1,3-Dichloropropene	ND

SCAN	COMPOUND	RESULT
	Trichloroethene	ND
	Dibromochloromethane	ND
	1,1,2-Trichloroethane	ND
	cis-1,3-Dichloropropene	ND
	2-Chloroethylvinyl Ether	ND
	Bromoform	ND
	1,1,2,2-Tetrachloroethane	ND
	Tetrachloroethylene	ND
	Chlorobenzene	ND
	1,3-Dichlorobenzene	ND
	1,2-Dichlorobenzene	ND
	1,4-Dichlorobenzene	ND

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PAGE 8 Analytical Serv REPORT LAB # 85-01-134
RECEIVED: 01/22/85 Results by Sample Continued From Above

SAMPLE ID 85-0876 FRACTION 01A TEST CODE SW8010 NAME GC-HECD Haloq. Vol.- SW846
Date & Time Collected 01/18/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

All results reported in ug/kg unless otherwise specified.

ND = not detected at detection limit of 1 ug/kg, unless otherwise specified.

CORPORATION

PAGE 9 Analytical Serv REPORT LAB # 85-01-134
RECEIVED: 01/22/85 Results by Sample

SAMPLE ID 85-0876 FRACTION 01A TEST CODE SW8020 NAME GC-PID Arom. Vol. - SW846
Date & Time Collected 01/18/85 Category

DATA FILE D DATE INJECTED 02/06/85 ANALYST MCL VERIFIED BY JSG
CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT.
SCAN = scan number or retention time on chromatogram.
All results reported in ug/kg unless otherwise specified.
ND = not detected at detection limit of 1 ug/kg, unless otherwise specified.

CORPORATION

PAGE 10 Analytical Serv REPORT LAB # 85-01-134
RECEIVED: 01/22/85 Results by Sample

SAMPLE ID 85-0877 FRACTION 02B TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 01/18/85 Category

DATE ANALYZED 02/05/85 VERIFIED BY DLH

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	2.1	AS	Arsenic	<3
BA	Barium	16	HG	Mercury	0.07
CD	Cadmium	<.39	PB	Lead	9
CR	Chromium	6.9	SE	Selenium	7

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/g unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

CORPORATION

PAGE 11 Analytical Serv REPORT LAB # 85-01-134
RECEIVED: 01/22/85 Results by Sample

SAMPLE ID 85-0877 FRACTION 02C TEST CODE H1RCRA NAME RCRA Herbicides
Date & Time Collected 01/18/85 Category

DATE EXTRACTED 02/20/85 DATE INJECTED 03/08/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER HERBICIDES	RESULT	DET. LIMIT
2,4-D	0.52	.2			
2,4,5-TP (Silvex)	ND	.2			
2,4,5-T	ND	.2			

NOTES AND DEFINITIONS FOR THIS REPORT.
ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

SAMPLE ID 85-0877 FRACTION 02C TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 01/18/85 Category

DATE EXTRACTED 02/22/85 DATE INJECTED 03/08/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER PESTICIDES	RESULT	DET. LIMIT
Lindane	ND	0.1			
Endrin	ND	0.1			
Methoxychlor	ND	1.0			
Toxaphene	ND	1.0	reported in ug/kg		
Chlordane	ND	1.0			

NOTES AND DEFINITIONS FOR THIS REPORT.

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PAGE 12 Analytical Serv REPORT LAB # 85-01-134
RECEIVED: 01/22/85 Results by Sample Continued From Above

SAMPLE ID 85-0877 FRACTION 02C TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 01/18/85 Category

ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

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PAGE 13 Analytical Serv REPORT LAB # 85-01-134
RECEIVED: 01/22/85 Results by Sample

SAMPLE ID 85-0877 FRACTION 02A TEST CODE SW8010 NAME GC-HECD Haloq. Vol. - SW846
Date & Time Collected 01/18/85 Category

DATA FILE A DATE INJECTED 02/06/85 ANALYST MCL VERIFIED BY JSG
CONC. FACTOR INSTRUMENT a COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT
	Chloromethane	ND
	Bromomethane	ND
	Vinyl Chloride	ND
	Chloroethane	ND
	Methylene Chloride	ND
	Trichlorofluoromethane	ND
	1,1-Dichloroethene	ND
	1,1-Dichloroethane	ND
	trans-1,2-Dichloroethene	ND
	Chloroform	ND
	1,2-Dichloroethane	ND
	1,1,1-Trichloroethane	ND
	Carbon Tetrachloride	ND
	Bromodichloromethane	ND
	1,2-Dichloropropane	ND
	trans-1,3-Dichloropropene	ND

SCAN	COMPOUND	RESULT
	Trichloroethene	ND
	Dibromochloromethane	ND
	1,1,2-Trichloroethane	ND
	cis-1,3-Dichloropropene	ND
	2-Chloroethylvinyl Ether	ND
	Bromoform	ND
	1,1,2,2-Tetrachloroethane	ND
	Tetrachloroethylene	ND
	Chlorobenzene	ND
	1,3-Dichlorobenzene	ND
	1,2-Dichlorobenzene	ND
	1,4-Dichlorobenzene	ND

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PAGE 14 Analytical Serv REPORT LAB # 85-01-134
RECEIVED: 01/22/85 Results by Sample Continued From Above

SAMPLE ID 85-0877 FRACTION 02A TEST CODE SW8010 NAME GC-HECD Haloq. Vol. - SW846
Date & Time Collected 01/18/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

All results reported in ug/kg unless otherwise specified.

ND = not detected at detection limit of 1 ug/kg, unless otherwise specified.

CORPORATION

PAGE 15 Analytical Serv REPORT LAB # 85-01-134
RECEIVED: 01/22/85 Results by Sample

SAMPLE ID 85-0877 FRACTION 02A TEST CODE SW8020 NAME GC-PID Arom. Vol. - SW846
Date & Time Collected 01/18/85 Category

DATA FILE D DATE INJECTED 02/06/85 ANALYST MCL VERIFIED BY JSG
CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT.
SCAN = scan number or retention time on chromatogram.
All results reported in ug/kg unless otherwise specified.
ND = not detected at detection limit of 1 ug/kg, unless otherwise specified.

CORPORATION

PAGE 16 Analytical Serv REPORT LAB # 85-01-134
RECEIVED: 01/22/85 Results by Sample

SAMPLE ID 85-0878 FRACTION 03B TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 01/18/85 Category

DATE ANALYZED 02/05/85 VERIFIED BY DLH

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	2.1	AS	Arsenic	11
BA	Barium	17	HG	Mercury	0.08
CD	Cadmium	<.40	PB	Lead	9
CR	Chromium	8.0	SE	Selenium	7

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/g unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

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PAGE 17 Analytical Serv REPORT LAB # 85-01-134
RECEIVED: 01/22/85 Results by Sample

SAMPLE ID 85-0878 FRACTION 03C TEST CODE H1RCRA NAME RCRA Herbicides
Date & Time Collected 01/18/85 Category

DATE EXTRACTED 02/20/85 DATE INJECTED 03/08/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER HERBICIDES	RESULT	DET. LIMIT
2,4-D	ND	.2			
2,4,5-TP (Silvex)	ND	.2			
2,4,5-T	ND	.2			

NOTES AND DEFINITIONS FOR THIS REPORT.
ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

SAMPLE ID 85-0878 FRACTION 03C TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 01/18/85 Category

DATE EXTRACTED 02/22/85 DATE INJECTED 03/01/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER PESTICIDES	RESULT	DET. LIMIT
Lindane	ND	0.1			
Endrin	ND	0.1			
Methoxychlor	ND	1.0			
Toxaphene	ND	1.0	reported in ug/kg		
Chlordane	ND	1.0			

NOTES AND DEFINITIONS FOR THIS REPORT.

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PAGE 18 Analytical Serv REPORT LAB # 85-01-134
RECEIVED: 01/22/85 Results by Sample Continued From Above

SAMPLE ID 85-0878 FRACTION 03C TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 01/18/85 Category

ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

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PAGE 19 Analytical Serv REPORT LAB # 85-01-134
RECEIVED: 01/22/85 Results by Sample

SAMPLE ID 85-0878 FRACTION 03A TEST CODE SW8010 NAME GC-HECD Halog. Vol.- SW846
Date & Time Collected 01/18/85 Category

DATA FILE A DATE INJECTED 02/06/85 ANALYST MCL VERIFIED BY JSG
CONC. FACTOR INSTRUMENT a COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Chloromethane	ND		Trichloroethene	ND
	Bromomethane	ND		Dibromochloromethane	ND
	Vinyl Chloride	ND		1,1,2-Trichloroethane	ND
	Chloroethane	ND		cis-1,3-Dichloropropene	ND
	Methylene Chloride	ND		2-Chloroethylvinyl Ether	ND
	Trichlorofluoromethane	ND		Bromoform	ND
	1,1-Dichloroethene	ND		1,1,2,2-Tetrachloroethane	ND
	1,1-Dichloroethane	ND		Tetrachloroethylene	ND
	trans-1,2-Dichloroethene	ND		Chlorobenzene	ND
	Chloroform	ND		1,3-Dichlorobenzene	ND
	1,2-Dichloroethane	ND		1,2-Dichlorobenzene	ND
	1,1,1-Trichloroethane	ND		1,4-Dichlorobenzene	ND
	Carbon Tetrachloride	ND			
	Bromodichloromethane	ND			
	1,2-Dichloropropane	ND			
	trans-1,3-Dichloropropene	ND			

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PAGE 20 Analytical Serv REPORT LAB # 85-01-134
RECEIVED: 01/22/85 Results by Sample Continued From Above

SAMPLE ID 85-0878 FRACTION 03A TEST CODE SW8010 NAME GC-HECD Halog. Vol. - SW846
Date & Time Collected 01/18/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

All results reported in ug/kg unless otherwise specified.

ND = not detected at detection limit of 1 ug/kg, unless otherwise specified.

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PAGE 21 Analytical Serv REPORT LAB # 85-01-134
RECEIVED: 01/22/85 Results by Sample

SAMPLE ID 85-0878 FRACTION 03A TEST CODE SW8020 NAME GC-PID Arom. Vol. - SW846
Date & Time Collected 01/18/85 Category

DATA FILE D DATE INJECTED 02/06/85 ANALYST RAA VERIFIED BY JSG
CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT.
SCAN = scan number or retention time on chromatogram.
All results reported in ug/kg unless otherwise specified.
ND = not detected at detection limit of 1 ug/kg, unless otherwise specified.

CORPORATION

PAGE 22 Analytical Serv REPORT LAB # 85-01-134

RECEIVED: 01/22/85 Results by Sample

SAMPLE ID 85-0884 FRACTION 04B TEST CODE EP MET NAME RCRA Metals

Date & Time Collected 01/19/85 Category

DATE ANALYZED 02/05/85 VERIFIED BY DLH

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	1.4	AS	Arsenic	<3
BA	Barium	25	HG	Mercury	0.12
CD	Cadmium	<.40	PB	Lead	<4
CR	Chromium	4.3	SE	Selenium	10

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/g unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

CORPORATION

PAGE 23 Analytical Serv REPORT LAB # 85-01-134
RECEIVED: 01/22/85 Results by Sample

SAMPLE ID 85-0884 FRACTION 04C TEST CODE H1RCRA NAME RCRA Herbicides
Date & Time Collected 01/19/85 Category

DATE EXTRACTED 02/20/85 DATE INJECTED 03/08/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER HERBICIDES	RESULT	DET. LIMIT
2,4-D	ND	.2			
2,4,5-TP (Silvex)	ND	.2			
2,4,5-T	ND	.2			

NOTES AND DEFINITIONS FOR THIS REPORT.
ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

SAMPLE ID 85-0884 FRACTION 04C TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 01/19/85 Category

DATE EXTRACTED 02/22/85 DATE INJECTED 02/27/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER PESTICIDES	RESULT	DET. LIMIT
Lindane	ND	0.1			
Endrin	ND	0.1			
Methoxychlor	ND	1.0			
Toxaphene	ND	1.0	reported in ug/kg		
Chlordane	ND	1.0			

NOTES AND DEFINITIONS FOR THIS REPORT.

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PAGE 24 Analytical Serv REPORT LAB # 85-01-134
RECEIVED: 01/22/85 Results by Sample Continued From Above

SAMPLE ID 85-0884 FRACTION 04C TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 01/19/85 Category

ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

CORPORATION

PAGE 25 Analytical Serv REPORT LAB # 85-01-134
RECEIVED: 01/22/85 Results by Sample

SAMPLE ID 85-0884 FRACTION 04A TEST CODE SW8010 NAME GC-HECD Haloq. Vol. - SW846
Date & Time Collected 01/19/85 Category

DATA FILE A DATE INJECTED 02/06/85 ANALYST MCL VERIFIED BY JSQ
CONC. FACTOR INSTRUMENT a COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Chloromethane	ND		Trichloroethene	ND
	Bromomethane	ND		Dibromochloromethane	ND
	Vinyl Chloride	ND		1,1,2-Trichloroethane	ND
	Chloroethane	ND		cis-1,3-Dichloropropene	ND
	Methylene Chloride	ND		2-Chloroethylvinyl Ether	ND
	Trichlorofluoromethane	ND		Bromoform	ND
	1,1-Dichloroethene	ND		1,1,2,2-Tetrachloroethane	ND
	1,1-Dichloroethane	ND		Tetrachloroethylene	ND
	trans-1,2-Dichloroethene	ND		Chlorobenzene	ND
	Chloroform	ND		1,3-Dichlorobenzene	ND
	1,2-Dichloroethane	ND		1,2-Dichlorobenzene	ND
	1,1,1-Trichloroethane	ND		1,4-Dichlorobenzene	ND
	Carbon Tetrachloride	ND			
	Bromodichloromethane	ND			
	1,2-Dichloropropane	ND			
	trans-1,3-Dichloropropene	ND			

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PAGE 26 Analytical Serv REPORT LAB # 85-01-134
RECEIVED: 01/22/85 Results by Sample Continued From Above

SAMPLE ID 85-0884 FRACTION 04A TEST CODE SW8010 NAME GC-HECD Haloq. Vol. - SW846
Date & Time Collected 01/19/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

All results reported in ug/kg unless otherwise specified.

ND = not detected at detection limit of 1 ug/kg, unless otherwise specified.

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PAGE 27 Analytical Serv REPORT LAB # 85-01-134
RECEIVED: 01/22/85 Results by Sample

SAMPLE ID 85-0884 FRACTION 04A TEST CODE SW8020 NAME GC-PID Arom. Vol. - SW846
Date & Time Collected 01/19/85 Category

DATA FILE D DATE INJECTED 02/06/85 ANALYST RAA VERIFIED BY JSG
CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT.
SCAN = scan number or retention time on chromatogram.
All results reported in ug/kg unless otherwise specified.
ND = not detected at detection limit of 1 ug/kg, unless otherwise specified.

CORPORATION

PAGE 28 Analytical Serv REPORT LAB # 85-01-134
RECEIVED: 01/22/85 Results by Sample

SAMPLE ID 85-0885 FRACTION 05B TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 01/19/85 Category

DATE ANALYZED 02/05/85 VERIFIED BY DLH

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	1.4	AS	Arsenic	<3
BA	Barium	23	HG	Mercury	0.17
CD	Cadmium	<.40	PB	Lead	<4
CR	Chromium	5.4	SE	Selenium	<4

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/g unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

CORPORATION

PAGE 29 Analytical Serv REPORT LAB # 85-01-134
RECEIVED: 01/22/85 Results by Sample

SAMPLE ID 85-0885 FRACTION 05C TEST CODE H1RCRA NAME RCRA Herbicides
Date & Time Collected 01/19/85 Category

DATE EXTRACTED 02/20/85 DATE INJECTED 03/08/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER HERBICIDES	RESULT	DET. LIMIT
2,4-D	ND	.2			
2,4,5-TP (Silvex)	ND	.2			
2,4,5-T	ND	.2			

NOTES AND DEFINITIONS FOR THIS REPORT.
ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

SAMPLE ID 85-0885 FRACTION 05C TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 01/19/85 Category

DATE EXTRACTED 02/22/85 DATE INJECTED 02/27/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER PESTICIDES	RESULT	DET. LIMIT
Lindane	ND	0.1			
Endrin	ND	0.1			
Methoxychlor	ND	1.0			
Toxaphene	ND	1.0	reported in ug/kg		
Chlordane	ND	1.0			

NOTES AND DEFINITIONS FOR THIS REPORT.

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PAGE 30 Analytical Serv REPORT LAB # 85-01-134
RECEIVED: 01/22/85 Results by Sample Continued From Above

SAMPLE ID 85-0885 FRACTION 05C TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 01/19/85 Category

ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

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PAGE 31 Analytical Serv REPORT LAB # 85-01-134
RECEIVED: 01/22/85 Results by Sample

SAMPLE ID 85-0885 FRACTION 05A TEST CODE SW8010 NAME GC-HECD Halog. Vol. - SW846
Date & Time Collected 01/19/85 Category

DATA FILE A DATE INJECTED 02/06/85 ANALYST RAA VERIFIED BY JSG
CONC. FACTOR INSTRUMENT a COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Chloromethane	ND		Trichloroethene	ND
	Bromomethane	ND		Dibromochloromethane	ND
	Vinyl Chloride	ND		1,1,2-Trichloroethane	ND
	Chloroethane	ND		cis-1,3-Dichloropropene	ND
	Methylene Chloride	ND		2-Chloroethylvinyl Ether	ND
	Trichlorofluoromethane	ND		Bromoform	ND
	1,1-Dichloroethene	ND		1,1,2,2-Tetrachloroethane	ND
	1,1-Dichloroethane	ND		Tetrachloroethylene	ND
	trans-1,2-Dichloroethene	ND		Chlorobenzene	ND
	Chloroform	ND		1,3-Dichlorobenzene	ND
	1,2-Dichloroethane	ND		1,2-Dichlorobenzene	ND
	1,1,1-Trichloroethane	ND		1,4-Dichlorobenzene	ND
	Carbon Tetrachloride	ND			
	Bromodichloromethane	ND			
	1,2-Dichloropropane	ND			
	trans-1,3-Dichloropropene	ND			

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PAGE 32 Analytical Serv REPORT LAB # 85-01-134
RECEIVED: 01/22/85 Results by Sample Continued From Above

SAMPLE ID 85-0885 FRACTION 05A TEST CODE SW8010 NAME GC-HECD Haloq. Vol. - SW846
Date & Time Collected 01/19/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

All results reported in ug/kg unless otherwise specified.

ND = not detected at detection limit of 1 ug/kg, unless otherwise specified.

CORPORATION

PAGE 33 Analytical Serv REPORT LAB # 85-01-134
RECEIVED: 01/22/85 Results by Sample

SAMPLE ID 85-0885 FRACTION 05A TEST CODE SW8020 NAME GC-PID Arom. Vol. - SW846
Date & Time Collected 01/19/85 Category

DATA FILE D DATE INJECTED 02/06/85 ANALYST RAA VERIFIED BY JSG
CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT.
SCAN = scan number or retention time on chromatogram.
All results reported in ug/kg unless otherwise specified.
ND = not detected at detection limit of 1 ug/kg, unless otherwise specified.

CORPORATION

PAGE 34 Analytical Serv REPORT LAB # 85-01-134
RECEIVED: 01/22/85 Results by Sample

SAMPLE ID 85-0886 FRACTION 06B TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 01/19/85 Category

DATE ANALYZED 02/05/85 VERIFIED BY DLH

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	1.6	AS	Arsenic	<3
BA	Barium	40	HG	Mercury	0.13
CD	Cadmium	<.39	PB	Lead	8
CR	Chromium	22	SE	Selenium	17

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/g unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

CORPORATION

PAGE 35 Analytical Serv REPORT LAB # 85-01-134
RECEIVED: 01/22/85 Results by Sample

SAMPLE ID 85-0886 FRACTION 06C TEST CODE H1RCRA NAME RCRA Herbicides
Date & Time Collected 01/19/85 Category

DATE EXTRACTED 02/21/85 DATE INJECTED 03/08/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER HERBICIDES	RESULT	DET. LIMIT
2,4-D	ND	.2			
2,4,5-TP (Silvex)	ND	.2			
2,4,5-T	ND	.2			

NOTES AND DEFINITIONS FOR THIS REPORT.
ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

SAMPLE ID 85-0886 FRACTION 06C TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 01/19/85 Category

DATE EXTRACTED 02/22/85 DATE INJECTED 02/27/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER PESTICIDES	RESULT	DET. LIMIT
Lindane	nd	0.1			
Endrin	nd	0.1			
Methoxychlor	nd	0.1			
Toxaphene	nd	0.1	reported in ug/kg		
chlordane	nd	0.1			

NOTES AND DEFINITIONS FOR THIS REPORT.

SAMPLE ID 85-0886 FRACTION 06C TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 01/19/85 Category

ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

CORPORATION

PAGE 37 Analytical Serv REPORT LAB # 85-01-134
RECEIVED: 01/22/85 Results by Sample

SAMPLE ID 85-0886 FRACTION 06A TEST CODE SW8010 NAME GC-HECD Haloq. Vol.- SW846
Date & Time Collected 01/19/85 Category

DATA FILE A DATE INJECTED 02/06/85 ANALYST RAA VERIFIED BY JSG
CONC. FACTOR INSTRUMENT a COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT
	Chloromethane	ND
	Bromomethane	ND
	Vinyl Chloride	ND
	Chloroethane	ND
	Methylene Chloride	ND
	Trichlorofluoromethane	ND
	1,1-Dichloroethene	ND
	1,1-Dichloroethane	ND
	trans-1,2-Dichloroethene	ND
	Chloroform	ND
	1,2-Dichloroethane	ND
	1,1,1-Trichloroethane	ND
	Carbon Tetrachloride	ND
	Bromodichloromethane	ND
	1,2-Dichloropropane	ND
	trans-1,3-Dichloropropene	ND

SCAN	COMPOUND	RESULT
	Trichloroethene	ND
	Dibromochloromethane	ND
	1,1,2-Trichloroethane	ND
	cis-1,3-Dichloropropene	ND
	2-Chloroethylvinyl Ether	ND
	Bromoform	ND
	1,1,2,2-Tetrachloroethane	ND
	Tetrachloroethylene	ND
	Chlorobenzene	ND
	1,3-Dichlorobenzene	ND
	1,2-Dichlorobenzene	ND
	1,4-Dichlorobenzene	ND

CORPORATION

PAGE 38 Analytical Serv REPORT LAB # 85-01-134
RECEIVED: 01/22/85 Results by Sample Continued From Above

SAMPLE ID 85-0886 FRACTION 06A TEST CODE SW8010 NAME GC-HECD Haloq. Vol. - SW846
Date & Time Collected 01/19/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

All results reported in ug/kg unless otherwise specified.

ND = not detected at detection limit of 1 ug/kg, unless otherwise specified.

CORPORATION

PAGE 39 Analytical Serv REPORT LAB # 85-01-134
RECEIVED: 01/22/85 Results by Sample

SAMPLE ID 85-0886 FRACTION 06A TEST CODE SW8020 NAME GC-PID Arom. Vol. - SW846
Date & Time Collected 01/19/85 Category

DATA FILE D DATE INJECTED 02/06/85 ANALYST RAA VERIFIED BY JSQ
CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT.
SCAN = scan number or retention time on chromatogram.
All results reported in ug/kg unless otherwise specified.
ND = not detected at detection limit of 1 ug/kg, unless otherwise specified.

CORPORATION

PAGE 40 Analytical Serv REPORT LAB # 85-01-134
RECEIVED: 01/22/85 Results by Sample

SAMPLE ID 85-0887 FRACTION 07B TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 01/19/85 Category

DATE ANALYZED 02/05/85 VERIFIED BY DLH

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	1.7	AS	Arsenic	<3
BA	Barium	43	HG	Mercury	0.10
CD	Cadmium	<.40	PB	Lead	10
CR	Chromium	6.3	SE	Selenium	16

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/g unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

CORPORATION

PAGE 41 Analytical Serv REPORT LAB # 85-01-134
RECEIVED: 01/22/85 Results by Sample

SAMPLE ID 85-0887 FRACTION 07C TEST CODE H1RCRA NAME RCRA Herbicides
Date & Time Collected 01/19/85 Category

DATE EXTRACTED 02/21/85 DATE INJECTED 03/08/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER HERBICIDES	RESULT	DET. LIMIT
2,4-D	ND	.2			
2,4,5-TP (Silvex)	ND	.2			
2,4,5-T	ND	.2			

NOTES AND DEFINITIONS FOR THIS REPORT.
ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

SAMPLE ID 85-0887 FRACTION 07C TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 01/19/85 Category

DATE EXTRACTED 02/22/85 DATE INJECTED 02/27/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER PESTICIDES	RESULT	DET. LIMIT
Lindane	ND	0.1			
Endrin	ND	0.1			
Methoxychlor	ND	1.0			
Toxaphene	ND	1.0	reported in ug/kg		
Chlordane	ND	1.0			

NOTES AND DEFINITIONS FOR THIS REPORT.

CORPORATION

PAGE 42 Analytical Serv REPORT LAB # 85-01-134
RECEIVED: 01/22/85 Results by Sample Continued From Above

SAMPLE ID 85-0887 FRACTION 07C TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 01/19/85 Category

ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

CORPORATION

PAGE 43 Analytical Serv REPORT LAB # 85-01-134
RECEIVED: 01/22/85 Results by Sample

SAMPLE ID 85-0887 FRACTION 07A TEST CODE SW8010 NAME GC-HECD Haloq. Vol.- SW846
Date & Time Collected 01/19/85 Category

DATA FILE A DATE INJECTED 02/06/85 ANALYST RAA VERIFIED BY JSG
CONC. FACTOR INSTRUMENT a COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Chloromethane	ND		Trichloroethene	ND
	Bromomethane	ND		Dibromochloromethane	ND
	Vinyl Chloride	ND		1,1,2-Trichloroethane	ND
	Chloroethane	ND		cis-1,3-Dichloropropene	ND
	Methylene Chloride	ND		2-Chloroethylvinyl Ether	ND
	Trichlorofluoromethane	ND		Bromoform	ND
	1,1-Dichloroethene	ND		1,1,2,2-Tetrachloroethane	ND
	1,1-Dichloroethane	ND		Tetrachloroethylene	ND
	trans-1,2-Dichloroethene	ND		Chlorobenzene	ND
	Chloroform	ND		1,3-Dichlorobenzene	ND
	1,2-Dichloroethane	ND		1,2-Dichlorobenzene	ND
	1,1,1-Trichloroethane	ND		1,4-Dichlorobenzene	ND
	Carbon Tetrachloride	ND			
	Bromodichloromethane	ND			
	1,2-Dichloropropane	ND			
	trans-1,3-Dichloropropene	ND			

CORPORATION

PAGE 44 Analytical Serv REPORT LAB # 85-01-134
RECEIVED: 01/22/85 Results by Sample Continued From Above

SAMPLE ID 85-0887 FRACTION 07A TEST CODE SW8010 NAME GC-HECD Haloq. Vol. - SW846
Date & Time Collected 01/19/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

All results reported in ug/kg unless otherwise specified.

ND = not detected at detection limit of 1 ug/kg, unless otherwise specified.

CORPORATION

PAGE 45 Analytical Serv REPORT LAB # 85-01-134
RECEIVED: 01/22/85 Results by Sample

SAMPLE ID 85-0887 FRACTION 07A TEST CODE SW8020 NAME GC-PID Arom. Vol. - SW846
Date & Time Collected 01/19/85 Category

DATA FILE D DATE INJECTED 02/06/85 ANALYST RAA VERIFIED BY JSG
CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT.
SCAN = scan number or retention time on chromatogram.
All results reported in ug/kg unless otherwise specified.
ND = not detected at detection limit of 1 ug/kg, unless otherwise specified.

CORPORATION

PAGE 46 Analytical Serv REPORT LAB # 85-01-134
RECEIVED: 01/22/85 Results by Sample

SAMPLE ID 85-0887 QC FRACTION 08B TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 01/19/85 Category

DATE ANALYZED 02/05/85 VERIFIED BY DLH

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	1.4	AS	Arsenic	<3
BA	Barium	41	HG	Mercury	0.11
CD	Cadmium	<.40	PB	Lead	8
CR	Chromium	6.5	SE	Selenium	12

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/g unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

SAMPLE ID 85-0887 QC FRACTION 08C TEST CODE H1RCRA NAME RCRA Herbicides
Date & Time Collected 01/19/85 Category

DATE EXTRACTED 02/21/85 DATE INJECTED 03/08/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER HERBICIDES	RESULT	DET. LIMIT
2,4-D	ND	.2			
2,4,5-TP (Silvex)	ND	.2			
2,4,5-T	ND	.2			

NOTES AND DEFINITIONS FOR THIS REPORT.
ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

SAMPLE ID 85-0887 QC FRACTION 08C TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 01/19/85 Category

DATE EXTRACTED 02/22/85 DATE INJECTED 02/27/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER PESTICIDES	RESULT	DET. LIMIT
Lindane	ND	0.1			
Endrin	ND	0.1			
Methoxychlor	ND	1.0			
Toxaphene	ND	1.0	reported in ug/kg		
Chlordane	ND	1.0			

NOTES AND DEFINITIONS FOR THIS REPORT.

CORPORATION

PAGE 48 Analytical Serv REPORT LAB # 85-01-134
RECEIVED: 01/22/85 Results by Sample Continued From Above

SAMPLE ID 85-0887 QC FRACTION 08C TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 01/19/85 Category

ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

CORPORATION

PAGE 49 Analytical Serv REPORT LAB # 85-01-134
RECEIVED: 01/22/85 Results by Sample

SAMPLE ID 85-0888 FRACTION 09B TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 01/19/85 Category

DATE ANALYZED 02/05/85 VERIFIED BY DLH

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	1.1	AS	Arsenic	<3
BA	Barium	16	HG	Mercury	<.05
CD	Cadmium	<.39	PB	Lead	<4
CR	Chromium	1.8	SE	Selenium	<4

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/g unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

CORPORATION

PAGE 50 Analytical Serv REPORT LAB # 85-01-134
RECEIVED: 01/22/85 Results by Sample

SAMPLE ID 85-0888 FRACTION 09C TEST CODE H1RCRA NAME RCRA Herbicides
Date & Time Collected 01/19/85 Category

DATE EXTRACTED 02/21/85 DATE INJECTED 03/08/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER HERBICIDES	RESULT	DET. LIMIT
2,4-D	ND	.2			
2,4,5-TP (Silvex)	ND	.2			
2,4,5-T	ND	.2			

NOTES AND DEFINITIONS FOR THIS REPORT.
ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

SAMPLE ID 85-0888 FRACTION 09C TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 01/19/85 Category

DATE EXTRACTED 02/22/85 DATE INJECTED 02/27/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER PESTICIDES	RESULT	DET. LIMIT
Lindane	ND	0.1			
Endrin	ND	0.1			
Methoxychlor	ND	1.0			
Toxaphene	ND	1.0	reported in ug/kg		
Chlordane	ND	1.0			

NOTES AND DEFINITIONS FOR THIS REPORT.

CORPORATION

PAGE 51 Analytical Serv REPORT LAB # 85-01-134
RECEIVED: 01/22/85 Results by Sample Continued From Above

SAMPLE ID 85-0888 FRACTION 09C TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 01/19/85 Category

ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

CORPORATION

PAGE 52 Analytical Serv REPORT LAB # 85-01-134
RECEIVED: 01/22/85 Results by Sample

SAMPLE ID 85-0888 FRACTION 09A TEST CODE SW8010 NAME GC-HECD Haloq. Vol. - SW846
Date & Time Collected 01/19/85 Category

DATA FILE A DATE INJECTED 02/06/85 ANALYST RAA VERIFIED BY JSG
CONC. FACTOR INSTRUMENT a COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT
	Chloromethane	ND
	Bromomethane	ND
	Vinyl Chloride	ND
	Chloroethane	ND
	Methylene Chloride	ND
	Trichlorofluoromethane	ND
	1,1-Dichloroethene	ND
	1,1-Dichloroethane	ND
	trans-1,2-Dichloroethene	ND
	Chloroform	ND
	1,2-Dichloroethane	ND
	1,1,1-Trichloroethane	ND
	Carbon Tetrachloride	ND
	Bromodichloromethane	ND
	1,2-Dichloropropane	ND
	trans-1,3-Dichloropropene	ND

SCAN	COMPOUND	RESULT
	Trichloroethene	ND
	Dibromochloromethane	ND
	1,1,2-Trichloroethane	ND
	cis-1,3-Dichloropropene	ND
	2-Chloroethylvinyl Ether	ND
	Bromoform	ND
	1,1,2,2-Tetrachloroethane	ND
	Tetrachloroethylene	ND
	Chlorobenzene	ND
	1,3-Dichlorobenzene	ND
	1,2-Dichlorobenzene	ND
	1,4-Dichlorobenzene	ND

CORPORATION

PAGE 53 Analytical Serv REPORT LAB # 85-01-134
RECEIVED: 01/22/85 Results by Sample Continued From Above

SAMPLE ID 85-0888 FRACTION 09A TEST CODE SW8010 NAME GC-HECD Haloq. Vol. - SW846
Date & Time Collected 01/19/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

All results reported in ug/kg unless otherwise specified.

ND = not detected at detection limit of 1 ug/kg, unless otherwise specified.

CORPORATION

PAGE 54 Analytical Serv REPORT LAB # 85-01-134
RECEIVED: 01/22/85 Results by Sample

SAMPLE ID 85-0888 FRACTION 09A TEST CODE SW8020 NAME GC-PID Arom. Vol. - SW846
Date & Time Collected 01/19/85 Category

DATA FILE D DATE INJECTED 02/07/85 ANALYST MCL VERIFIED BY JSG
CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT.
SCAN = scan number or retention time on chromatogram.
All results reported in ug/kg unless otherwise specified.
ND = not detected at detection limit of 1 ug/kg, unless otherwise specified.

FRACTION AND TEST CODES FOR WORK NOT REPORTED ELSEWHERE

03D | DUP_NS
04D | DUP_NS

CORPORATION

PAGE 1 Analytical Serv REPORT LAB # 85-01-135

RECEIVED: 01/24/85 03/22/85 09:53:27

REPORT TO: Radian
Bl 4
Austin

ATTEN: Larry French

CLIENT: CARSWELL D06 SAMPLES: 5
COMPANY: Carswell AFB
FACILITY:

PREPARED BY: Radian Analytical Services
8501 MoPac Blvd.
P.O. Box 9948
Austin, Texas 78766

ATTEN:
PHONE: (512) 454-4797

CERTIFIED BY

CONTACT CONOVER

WORK ID: soil site 11 (rest of 8501088
TAKEN: JLM/PAW/LNF
TRANS: Fed Ex
TYPE:
P.O. #: 214-114-06-42
INVOICE: under separate cover

Footnotes and Comments

* Indicates a value less than 5 times the detection limit. Potential error for such low values ranges between 50 and 100%.

@ Indicates that spike recovery for this analysis on the specific matrix was not within acceptable limits indicating an interferent present.

SAMPLE IDENTIFICATION

01	11A1
02	11A2
03	11A3
04	11A4
05	11A5

Analytical Serv TEST CODES and NAMES used on this report

DRY WT	Dry weight of solid sample
EP MET	RCRA Metals
EX 509	Extraction only-5098 Herb.
EX 608	Extraction only - 608
H1RCRA	RCRA Herbicides
P1RCRA	RCRA Pesticides
PREP X	Special Digestion Method

TEST CODE default units	Sample 01 (entered units)	Sample 02 (entered units)	Sample 03 (entered units)	Sample 04 (entered units)	Sample 05 (entered units)
DRY_WT % moisture	9	17	15	21	15
EX_509 date complete	02/21/85	02/22/85	02/22/85	02/22/85	02/22/85
EX_608 date complete	02/26/85	02/26/85	02/26/85	02/26/85	02/26/85
PREP_X date complete	01/28/85	01/28/85	01/28/85	01/28/85	01/28/85

CORPORATION

PAGE 3 Analytical Serv REPORT LAB # 85-01-135
RECEIVED: 01/24/85 Results by Sample

SAMPLE ID 11A1 FRACTION Q1A TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 01/18/85 Category

DATE ANALYZED 02/05/85 VERIFIED BY DLH

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	<.20	AS	Arsenic	<3
BA	Barium	42	HG	Mercury	0.11
CD	Cadmium	<.39	PB	Lead	8
CR	Chromium	6.4	SE	Selenium	11

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in 1/28 unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

CORPORATION

PAGE 4 Analytical Serv REPORT LAB # 85-01-135
RECEIVED: 01/24/85 Results by Sample

SAMPLE ID 11A1 FRACTION Q1B TEST CODE H1RCRA NAME RCRA Herbicides
Date & Time Collected 01/18/85 Category

DATE EXTRACTED 02/21/85 DATE INJECTED 03/08/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER HERBICIDES	RESULT	DET. LIMIT
2,4-D	ND	50			
2,4,5-TP (Silvex)	ND	50			
2,4,5-T	ND	50			

NOTES AND DEFINITIONS FOR THIS REPORT.
ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

SAMPLE ID 11A1 FRACTION Q1B TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 01/18/85 Category

DATE EXTRACTED 02/26/85 DATE INJECTED 03/01/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER PESTICIDES	RESULT	DET. LIMIT
Lindane	ND	0.1			
Endrin	ND	0.1			
Methoxychlor	ND	1.0			
Toxaphene	ND	1.0	reported in ug/kg		
Chlordane	ND	1.0			

NOTES AND DEFINITIONS FOR THIS REPORT.

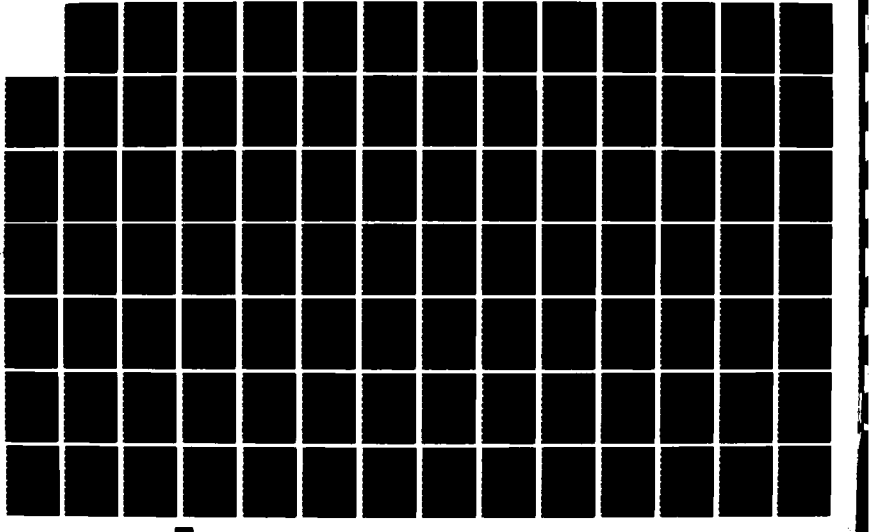
CORPORATION

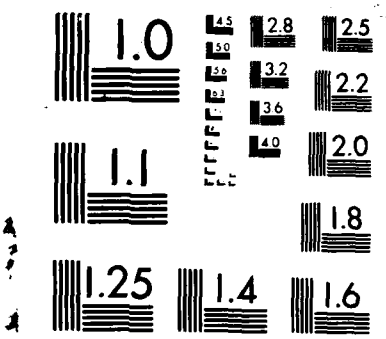
PAGE 5 Analytical Serv REPORT LAB # 85-01-135
RECEIVED: 01/24/85 Results by Sample Continued From Above

SAMPLE ID 11A1 FRACTION Q1B TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 01/18/85 Category

ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

AD-A174 196 INSTALLATION RESTORATION PROGRAM PHASE II 4/9
CONFIRMATION/QUANTIFICATION STAGE 1 VOLUME 2 APPENDIX A
(U) RADIAN CORP AUSTIN TX OCT 86 F33615-84-D-4402
UNCLASSIFIED F/G 13/2 NL





MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

CORPORATION

PAGE 6 Analytical Serv REPORT LAB # 85-01-135
RECEIVED: 01/24/85 Results by Sample

SAMPLE ID 11A2 FRACTION 02A TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 01/18/85 Category

DATE ANALYZED 02/05/85 VERIFIED BY DLH

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	<.20	AS	Arsenic	<3
BA	Barium	47	HG	Mercury	0.08
CD	Cadmium	<.39	PB	Lead	13
CR	Chromium	7.9	SE	Selenium	17

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in 1/28 unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

CORPORATION

PAGE 7 Analytical Serv REPORT LAB # 85-01-135
RECEIVED: 01/24/85 Results by Sample

SAMPLE ID 11A2 FRACTION 02B TEST CODE H1RCRA NAME RCRA Herbicides
Date & Time Collected 01/18/85 Category

DATE EXTRACTED 02/22/85 DATE INJECTED 03/08/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER HERBICIDES	RESULT	DET. LIMIT
2,4-D	ND	50			
2,4,5-TP (Silvex)	ND	50			
2,4,5-T	ND	50			

NOTES AND DEFINITIONS FOR THIS REPORT.
ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

SAMPLE ID 11A2 FRACTION 02B TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 01/18/85 Category

DATE EXTRACTED 02/26/85 DATE INJECTED 03/01/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER PESTICIDES	RESULT	DET. LIMIT
Lindane	ND	0.1			
Endrin	ND	0.1			
Methoxychlor	ND	1.0			
Toxaphene	ND	1.0	reported in ug/kg		
Chlordane	ND	1.0			

NOTES AND DEFINITIONS FOR THIS REPORT.

CORPORATION

PAGE 8 Analytical Serv REPORT LAB # 85-01-135
RECEIVED: 01/24/85 Results by Sample Continued From Above

SAMPLE ID 11A2 FRACTION 02B TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 01/18/85 Category

ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

CORPORATION

PAGE 9 Analytical Serv REPORT LAB # 85-01-135
RECEIVED: 01/24/85 Results by Sample

SAMPLE ID 11A3 FRACTION 03A TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 01/18/85 Category

DATE ANALYZED 02/05/85 VERIFIED BY DLH

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	0.72	AS	Arsenic	<3
BA	Barium	32	HG	Mercury	0.19
CD	Cadmium	<.40	PB	Lead	12
CR	Chromium	7.3	SE	Selenium	16

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in 1/28 unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

SAMPLE ID 11A3 FRACTION 03B TEST CODE H1RCRA NAME RCRA Herbicides
Date & Time Collected 01/18/85 Category

DATE EXTRACTED 02/22/85 DATE INJECTED 03/08/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER HERBICIDES	RESULT	DET. LIMIT
2,4-D	ND	50			
2,4,5-TP (Silvex)	ND	50			
2,4,5-T	ND	50			

NOTES AND DEFINITIONS FOR THIS REPORT.
ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

SAMPLE ID 11A3 FRACTION 03B TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 01/18/85 Category

DATE EXTRACTED 02/26/85 DATE INJECTED 03/01/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER PESTICIDES	RESULT	DET. LIMIT
Lindane	ND	0.1			
Endrin	ND	0.1			
Methoxychlor	ND	1.0			
Toxaphene	ND	1.0	reported in ug/kg		
Chlordane	ND	1.0			

NOTES AND DEFINITIONS FOR THIS REPORT.

CORPORATION

PAGE 11 Analytical Serv REPORT LAB # 85-01-135
RECEIVED: 01/24/85 Results by Sample Continued From Above

SAMPLE ID 11A3 FRACTION 03B TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 01/18/85 Category

ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

CORPORATION

PAGE 12 Analytical Serv REPORT LAB # 85-01-135
RECEIVED: 01/24/85 Results by Sample

SAMPLE ID 11A4 FRACTION 04A TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 01/18/85 Category

DATE ANALYZED 02/05/85 VERIFIED BY DLH

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	1.6	AS	Arsenic	<3
BA	Barium	32	HG	Mercury	0.11
CD	Cadmium	<.40	PB	Lead	13
CR	Chromium	6.5	SE	Selenium	20

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in 1/28 unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

SAMPLE ID 11A4 FRACTION 04B TEST CODE H1RCRA NAME RCRA Herbicides
Date & Time Collected 01/18/85 Category

DATE EXTRACTED 02/22/85 DATE INJECTED 03/08/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER HERBICIDES	RESULT	DET. LIMIT
2,4-D	ND	50			
2,4,5-TP (Silvex)	ND	50			
2,4,5-T	ND	50			

NOTES AND DEFINITIONS FOR THIS REPORT.
ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

SAMPLE ID 11A4 FRACTION 04B TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 01/18/85 Category

DATE EXTRACTED 02/26/85 DATE INJECTED 03/01/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER PESTICIDES	RESULT	DET. LIMIT
Lindane	ND	0.1			
Endrin	ND	0.1			
Methoxychlor	ND	1.0			
Toxaphene	ND	1.0	reported in ug/kg		
Chlordane	ND	1.0			

NOTES AND DEFINITIONS FOR THIS REPORT.

CORPORATION

PAGE 14 Analytical Serv REPORT LAB # 85-01-135
RECEIVED: 01/24/85 Results by Sample Continued From Above

SAMPLE ID 11A4 FRACTION Q4B TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 01/18/85 Category

ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

CORPORATION

PAGE 15 Analytical Serv REPORT LAB # 85-01-135
RECEIVED: 01/24/85 Results by Sample

SAMPLE ID 11A5 FRACTION 05A TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 01/18/85 Category

DATE ANALYZED 02/05/85 VERIFIED BY DLH

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	0.74	AS	Arsenic	<3
BA	Barium	20	HG	Mercury	0.15
CD	Cadmium	<.39	PB	Lead	<4
CR	Chromium	7.1	SE	Selenium	9

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in 1/28 unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

SAMPLE ID 11A5 FRACTION Q5B TEST CODE H1RCRA NAME RCRA Herbicides
Date & Time Collected 01/18/85 Category

DATE EXTRACTED 02/22/85 DATE INJECTED 03/08/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER HERBICIDES	RESULT	DET. LIMIT
2,4-D	ND	50			
2,4,5-TP (Silvex)	ND	50			
2,4,5-T	ND	50			

NOTES AND DEFINITIONS FOR THIS REPORT.
ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

SAMPLE ID 11A5 FRACTION Q5B TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 01/18/85 Category

DATE EXTRACTED 02/26/85 DATE INJECTED 03/01/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER PESTICIDES	RESULT	DET. LIMIT
Lindane	ND	0.1			
Endrin	ND	0.1			
Methoxychlor	ND	1.0			
Toxaphene	ND	1.0	reported in ug/kg		
Chlordane	ND	1.0			

NOTES AND DEFINITIONS FOR THIS REPORT.

CORPORATION

PAGE 17 Analytical Serv REPORT LAB # 85-01-135
RECEIVED: 01/24/85 Results by Sample Continued From Above

SAMPLE ID 11A5 FRACTION 05B TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 01/18/85 Category

ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

CORPORATION

PAGE 1 Analytical Serv REPORT LAB # 85-02-027
RECEIVED: 02/06/85 03/12/85 11:55:02

REPORT TO: Radian
BI 4
Austin

ATTEN: Larry French

CLIENT: CARSWELL DOA SAMPLES: 8
COMPANY: Carswell AFB
FACILITY:

WORK ID: site 4 water
TAKEN: JBC, DHG
TRANS: Fed Ex
TYPE:
P.O. #: 214-114-06-44
INVOICE: under separate cover

PREPARED BY: Radian Analytical Services
8501 MoPac Blvd
P.O. Box 9948
Austin, Texas 78766

ATTEN:
PHONE: (512) 454-4797

CERTIFIED BY

CONTACT CONOVER

Second column confirmation performed for all 601 samples.

Footnotes and Comments

* Indicates a value less than 5 times the detection limit. Potential error for such low values ranges between 50 and 100%.

@ Indicates that spike recovery for this analysis on the specific matrix was not within acceptable limits indicating an interferent present.

SAMPLE IDENTIFICATION

01	850910
02	850910 QA
03	850911
04	850911 QA
05	850912
06	850912 QA
07	850913
08	850913 QA

Analytical Serv TEST CODES and NAMES used on this report

EP MET	RCRA Metals
EX 509	Extraction only-509B Herb
EX 608	Extraction only - 608
GC 601	EPA Method 601/GC
GC 602	EPA Method 602/GC
H1RCRA	RCRA Herbicides
ONG IR	Oil and Grease, Infrared
P1RCRA	RCRA Pesticides
PHEN A	Total Phenolics
TOC	Total Organic Carbon

CORPORATION

PAGE 2 Analytical Serv REPORT LAB # 85-02-027
RECEIVED: 02/06/85 RESULTS BY TEST

TEST CODE default units	Sample 01 (entered units)	Sample 03 (entered units)	Sample 05 (entered units)	Sample 06 (entered units)	Sample 07 (entered units)
EX_509 date complete	02/14/85	02/14/85	02/14/85	02/14/85	02/14/85
EX_608 date complete	02/11/85	02/11/85	02/11/85	02/11/85	02/11/85
ONG_IR mg/L	19	<1	20	23	<1
PHEN_A mg/L	0.013	0.088	0.10	0.15	0.043
TOC mg/L	1	1	2	16	2

CORPORATION

PAGE 3 Analytical Serv REPORT LAB # 85-02-027
RECEIVED: 02/06/85 Results by Sample

SAMPLE ID 850910 FRACTION 01F TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 02/05/85 Category

DATE ANALYZED 02/19/85 VERIFIED BY DLH

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	<.002	AS	Arsenic	<.060
BA	Barium	0.21	HG	Mercury	0.0024
CD	Cadmium	<.002	PB	Lead	<.080
CR	Chromium	<.005	SE	Selenium	<.080

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/ml unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

CORPORATION

PAGE 4 Analytical Serv REPORT LAB # 85-02-027
RECEIVED: 02/06/85 Results by Sample

SAMPLE ID 850910 FRACTION Q1A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 02/05/85 Category

DATA FILE B DATE INJECTED 02/07/85 ANALYST RAA VERIFIED BY JSG
CONC FACTOR INSTRUMENT b COMPOUNDS DETECTED 6

SCAN	COMPOUND	RESULT
	Chloromethane	ND
	Bromomethane	ND
	Vinyl Chloride	ND
	Chloroethane	ND
	Methylene Chloride	ND
1	Trichlorofluoromethane	6.8
2	1,1-Dichloroethene	3.4
3	1,1-Dichloroethane	4.4
	trans-1,2-Dichloroethene	ND
	Chloroform	ND
	1,2-Dichloroethane	ND
4	1,1,1-Trichloroethane	8.0
	Carbon Tetrachloride	ND
	Bromodichloromethane	ND
	1,2-Dichloropropane	ND
	trans-1,3-Dichloropropene	ND

SCAN	COMPOUND	RESULT
5	Trichloroethene	3.0
	Dibromochloromethane *	ND
	1,1,2-Trichloroethane *	ND
	cis-1,3-Dichloropropene *	ND
	2-Chloroethylvinyl Ether	ND
	Bromoform	ND
	1,1,2,2-Tetrachloroethane #	ND
6	Tetrachloroethylene #	2.7
	Chlorobenzene	ND
	1,3-Dichlorobenzene	ND
	1,2-Dichlorobenzene	ND
	1,4-Dichlorobenzene	ND

CORPORATION

PAGE 5 Analytical Serv REPORT LAB # 85-02-027
RECEIVED: 02/06/85 Results by Sample Continued From Above

SAMPLE ID 850910 FRACTION 01A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 02/05/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

CORPORATION

PAGE 6 Analytical Serv REPORT LAB # 85-02-027
RECEIVED: 02/06/85 Results by Sample

SAMPLE ID 850910 FRACTION 01B TEST CODE GC 602 NAME EPA Method 602/GC
Date & Time Collected 02/05/85 Category

DATA FILE D DATE INJECTED 02/12/85 ANALYST RAA VERIFIED BY JSG
CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT
SCAN = scan number or retention time on chromatogram
All results reported in ug/L unless otherwise specified
ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79).

CORPORATION

PAGE 7 Analytical Serv REPORT LAB # 85-02-027
RECEIVED: 02/06/85 Results by Sample

SAMPLE ID 850910 FRACTION 01C TEST CODE H1RCRA NAME RCRA Herbicides
Date & Time Collected 02/05/85 Category

DATE EXTRACTED 02/14/85 DATE INJECTED 02/26/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER HERBICIDES	RESULT	DET. LIMIT
2,4-D	ND	.05			
2,4,5-TP (Silvex)	ND	.01			
2,4,5-T	ND	.002			

NOTES AND DEFINITIONS FOR THIS REPORT.
ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

SAMPLE ID 850910 FRACTION 01C TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 02/05/85 Category

DATE EXTRACTED 02/11/85 DATE INJECTED 02/20/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET LIMIT	OTHER PESTICIDES	RESULT	DET. LIMIT
Lindane	ND	0.1			
Endrin	ND	0.1			
Methoxychlor	ND	1.0			
Toxaphene	ND	1.0			
Chlordane	ND	1.0			

NOTES AND DEFINITIONS FOR THIS REPORT.

SAMPLE ID 850910 FRACTION O1C TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 02/05/85 Category

ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

CORPORATION

PAGE 9 Analytical Serv REPORT LAB # 85-02-027
RECEIVED: 02/06/85 Results by Sample

SAMPLE ID 850910 QA FRACTION 02A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 02/05/85 Category

DATA FILE B DATE INJECTED 02/03/85 ANALYST RAA VERIFIED BY JSG
CONC. FACTOR INSTRUMENT b COMPOUNDS DETECTED 6

SCAN	COMPOUND	RESULT
	Chloromethane	ND
	Bromomethane	ND
	Vinyl Chloride	ND
	Chloroethane	ND
	Methylene Chloride	ND
1	Trichlorofluoromethane	3.0
2	1,1-Dichloroethene	3.1
3	1,1-Dichloroethane	4.1
	trans-1,2-Dichloroethene	ND
	Chloroform	ND
	1,2-Dichloroethane	ND
4	1,1,1-Trichloroethane	8.2
	Carbon Tetrachloride	ND
	Bromodichloromethane	ND
	1,2-Dichloropropane	ND
	trans-1,3-Dichloropropene	ND

SCAN	COMPOUND	RESULT
5	Trichloroethene	3.0
	Dibromochloromethane *	ND
	1,1,2-Trichloroethane *	ND
	cis-1,3-Dichloropropene *	ND
	2-Chloroethylvinyl Ether	ND
	Bromoform	ND
	1,1,2,2-Tetrachloroethane #	ND
6	Tetrachloroethylene #	2.7
	Chlorobenzene	ND
	1,3-Dichlorobenzene	ND
	1,2-Dichlorobenzene	ND
	1,4-Dichlorobenzene	ND

CORPORATION

PAGE 10 Analytical Serv REPORT LAB # 85-02-027
RECEIVED: 02/06/85 Results by Sample Continued From Above

SAMPLE ID 850910 QA FRACTION 02A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 02/05/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

CORPORATION

PAGE 11 Analytical Serv REPORT LAB # 85-02-027
RECEIVED: 02/06/85 Results by Sample

SAMPLE ID 850910 QA FRACTION 02B TEST CODE GC 602 NAME EPA Method 602/GC
Date & Time Collected 02/05/85 Category

DATA FILE D DATE INJECTED 02/12/85 ANALYST RAA VERIFIED BY JSG
CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT
SCAN = scan number or retention time on chromatogram
All results reported in ug/L unless otherwise specified
ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79).

CORPORATION

PAGE 12 Analytical Serv REPORT LAB # 85-02-027
RECEIVED: 02/06/85 Results by Sample

SAMPLE ID 850911 FRACTION 03F TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 02/05/85 Category

DATE ANALYZED 02/19/85 VERIFIED BY DLH

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	<.002	AS	Arsenic	<.060
BA	Barium	0.40	HG	Mercury	0.0005
CD	Cadmium	<.002	PB	Lead	<.080
CR	Chromium	<.005	SE	Selenium	<.080

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/ml unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

CORPORATION

PAGE 13 Analytical Serv REPORT LAB # 85-02-027
RECEIVED: 02/06/85 Results by Sample

SAMPLE ID 850911 FRACTION 03A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 02/05/85 Category

DATA FILE B DATE INJECTED 02/07/85 ANALYST RAA VERIFIED BY JSG
CONC FACTOR INSTRUMENT b COMPOUNDS DETECTED 2

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Chloromethane	ND		Trichloroethene	ND
	Bromomethane	ND		Dibromochloromethane *	ND
	Vinyl Chloride	ND		1,1,2-Trichloroethane *	ND
	Chloroethane	ND		cis-1,3-Dichloropropene *	ND
1	Methylene Chloride	4.1		2-Chloroethylvinyl Ether	ND
	Trichlorofluoromethane	ND		Bromoform	ND
	1,1-Dichloroethene	ND		1,1,2,2-Tetrachloroethane #	ND
	1,1-Dichloroethane	ND		Tetrachloroethylene #	ND
	trans-1,2-Dichloroethene	ND		Chlorobenzene	ND
	Chloroform	ND		1,3-Dichlorobenzene	ND
	1,2-Dichloroethane	ND		1,2-Dichlorobenzene	ND
2	1,1,1-Trichloroethane	2.1		1,4-Dichlorobenzene	ND
	Carbon Tetrachloride	ND			
	Bromodichloromethane	ND			
	1,2-Dichloropropane	ND			
	trans-1,3-Dichloropropene	ND			

SAMPLE ID 850911 FRACTION 03A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 02/05/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT

SCAN # scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

CORPORATION

PAGE 15 Analytical Serv REPORT LAB # 85-02-027
RECEIVED: 02/06/85 Results by Sample

SAMPLE ID 850911 FRACTION 03B TEST CODE GC 602 NAME EPA Method 602/GC
Date & Time Collected 02/05/85 Category

DATA FILE D DATE INJECTED 02/12/85 ANALYST RAA VERIFIED BY JSG
CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT
SCAN - scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND - not detected at EPA detection limit method 602, (Federal Register, 12/3/79).

SAMPLE ID 850911 FRACTION Q3C TEST CODE H1RCRA NAME RCRA Herbicides
Date & Time Collected 02/05/85 Category

DATE EXTRACTED 02/14/85 DATE INJECTED 02/26/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER HERBICIDES	RESULT	DET. LIMIT
2,4-D	ND	.05			
2,4,5-TP (Silvex)	ND	.01			
2,4,5-T	ND	.002			

NOTES AND DEFINITIONS FOR THIS REPORT.
ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

SAMPLE ID 850911 FRACTION Q3C TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 02/05/85 Category

DATE EXTRACTED 02/11/85 DATE INJECTED 02/20/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER PESTICIDES	RESULT	DET. LIMIT
Lindane	ND	0.1			
Endrin	ND	0.1			
Methoxychlor	ND	1.0			
Toxaphene	ND	1.0			
Chlordane	ND	1.0			

NOTES AND DEFINITIONS FOR THIS REPORT.

CORPORATION

PAGE 17 Analytical Serv REPORT LAB # 85-02-027
RECEIVED: 02/06/85 Results by Sample Continued From Above

SAMPLE ID 850911 FRACTION 03C TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 02/05/85 Category

ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

CORPORATION

PAGE 18 Analytical Serv REPORT LAB # 85-02-027
RECEIVED: 02/06/85 Results by Sample

SAMPLE ID 850911 QA FRACTION Q4A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 02/05/85 Category

DATA FILE B DATE INJECTED 02/07/85 ANALYST RAA VERIFIED BY JSG
CONC. FACTOR INSTRUMENT b COMPOUNDS DETECTED 2

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Chloromethane	ND		Trichloroethene	ND
	Bromomethane	ND		Dibromochloromethane *	ND
	Vinyl Chloride	ND		1,1,2-Trichloroethane *	ND
	Chloroethane	ND		cis-1,3-Dichloropropene *	ND
	Methylene Chloride	ND		2-Chloroethylvinyl Ether	ND
1	Trichlorofluoromethane	4.3		Bromoform	ND
	1,1-Dichloroethene	ND		1,1,2,2-Tetrachloroethane #	ND
	1,1-Dichloroethane	ND		Tetrachloroethylene #	ND
	trans-1,2-Dichloroethene	ND		Chlorobenzene	ND
	Chloroform	ND		1,3-Dichlorobenzene	ND
	1,2-Dichloroethane	ND		1,2-Dichlorobenzene	ND
2	1,1,1-Trichloroethane	3.2		1,4-Dichlorobenzene	ND
	Carbon Tetrachloride	ND			
	Bromodichloromethane	ND			
	1,2-Dichloropropane	ND			
	trans-1,3-Dichloropropene	ND			

CORPORATION

PAGE 19 Analytical Serv REPORT LAB # 85-02-027
RECEIVED: 02/06/85 Results by Sample Continued From Above

SAMPLE ID 850911 QA FRACTION Q4A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 02/05/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

CORPORATION

PAGE 20 Analytical Serv REPORT LAB # 85-02-027
RECEIVED: 02/06/85 Results by Sample

SAMPLE ID 850911 QA FRACTION 04B TEST CODE GC 602 NAME EPA Method 602/GC
Date & Time Collected 02/05/85 Category

DATA FILE D DATE INJECTED 02/12/85 ANALYST RAA VERIFIED BY JSG
CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT:
SCAN = scan number or retention time on chromatogram
All results reported in ug/L unless otherwise specified
ND = not detected at EPA detection limit: method 602, (Federal Register, 12/3/79)

CORPORATION

PAGE 21 Analytical Serv REPORT LAB # 85-02-027
RECEIVED: 02/06/85 Results by Sample

SAMPLE ID 850912 FRACTION 05F TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 02/05/85 Category

DATE ANALYZED 02/19/85 VERIFIED BY DLH

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	< .002	AS	Arsenic	< .060
BA	Barium	0.36	HG	Mercury	0.0003
CD	Cadmium	< .002	PB	Lead	< .080
CR	Chromium	< .005	SE	Selenium	< .080

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/ml unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

CORPORATION

PAGE 22 Analytical Serv REPORT LAB # 85-02-027
RECEIVED: 02/06/85 Results by Sample

SAMPLE ID 850912 FRACTION 05A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 02/05/85 Category

DATA FILE B DATE INJECTED 02/07/85 ANALYST RAA VERIFIED BY JSG
CONC FACTOR INSTRUMENT b COMPOUNDS DETECTED 7

SCAN	COMPOUND	RESULT
	Chloromethane	ND
	Bromomethane	ND
1	Vinyl Chloride	12.3
2	Chloroethane	7.6
	Methylene Chloride	ND
3	Trichlorofluoromethane	3.4
4	1,1-Dichloroethene	2.6
	1,1-Dichloroethane	ND
	trans-1,2-Dichloroethene	ND
	Chloroform	ND
	1,2-Dichloroethane	ND
5	1,1,1-Trichloroethane	25.1
	Carbon Tetrachloride	ND
	Bromodichloromethane	ND
	1,2-Dichloropropane	ND
	trans-1,3-Dichloropropene	ND

SCAN	COMPOUND	RESULT
	Trichloroethene	ND
	Dibromochloromethane *	ND
	1,1,2-Trichloroethane *	ND
	cis-1,3-Dichloropropene *	ND
	2-Chloroethylvinyl Ether	ND
	Bromoform	ND
	1,1,2,2-Tetrachloroethane #	ND
6	Tetrachloroethylene #	16.3
7	Chlorobenzene	2.69
	1,3-Dichlorobenzene	ND
	1,2-Dichlorobenzene	ND
	1,4-Dichlorobenzene	ND

CORPORATION

PAGE 23 Analytical Serv REPORT LAB # 85-02-027
RECEIVED: 02/06/85 Results by Sample Continued From Above

SAMPLE ID 850912 FRACTION 05A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 02/05/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

CORPORATION

PAGE 24 Analytical Serv REPORT LAB # 85-02-027
RECEIVED: 02/06/85 Results by Sample

SAMPLE ID 850912 FRACTION Q5B TEST CODE GC 602 NAME EPA Method 602/GC
Date & Time Collected 02/05/85 Category

DATA FILE D DATE INJECTED 02/27/85 ANALYST MCL VERIFIED BY JSG
DILUTION FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT
SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified
ND = not detected at EPA detection limit, method 602, (Federal Register, 12/3/79).

CORPORATION

PAGE 25 Analytical Serv REPORT LAB # 85-02-027
RECEIVED: 02/06/85 Results by Sample

SAMPLE ID 850912 FRACTION 05C TEST CODE H1RCRA NAME RCRA Herbicides
Date & Time Collected 02/05/85 Category

DATE EXTRACTED 02/14/85 DATE INJECTED 02/26/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER HERBICIDES	RESULT	DET. LIMIT
2,4-D	ND	.05			
2,4,5-TP (Silvex)	ND	.01			
2,4,5-T	ND	.002			

NOTES AND DEFINITIONS FOR THIS REPORT.
ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

SAMPLE ID 850912 FRACTION 05C TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 02/05/85 Category

DATE EXTRACTED 02/11/85 DATE INJECTED 02/20/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET LIMIT	OTHER PESTICIDES	RESULT	DET. LIMIT
Lindane	<0.1	0.1			
Endrin	ND	0.1			
Methoxychlor	ND	1.0			
Toxaphene	ND	1.0			
Chlordane	ND	1.0			

NOTES AND DEFINITIONS FOR THIS REPORT

CORPORATION

PAGE 26 Analytical Serv REPORT LAB # 85-02-027
RECEIVED: 02/06/85 Results by Sample Continued From Above

SAMPLE ID 850912 FRACTION OSC TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 02/05/85 Category

ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

CORPORATION

PAGE 37 Analytical Serv REPORT LAB # 85-02-027
RECEIVED: 02/06/85 Results by Sample

SAMPLE ID 850912 QA FRACTION 06F TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 02/05/85 Category

DATE ANALYZED 02/19/85 VERIFIED BY DLH

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	< .002	AS	Arsenic	< .060
BA	Barium	0.43	HG	Mercury	0.0014
CD	Cadmium	< .002	PB	Lead	< .080
CR	Chromium	< .005	SE	Selenium	< .080

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/ml unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

CORPORATION

PAGE 28 Analytical Serv REPORT LAB # 85-02-027
RECEIVED: 02/06/85 Results by Sample

SAMPLE ID 850912 QA FRACTION Q&A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 02/05/85 Category

DATA FILE B DATE INJECTED 02/07/85 ANALYST RAA VERIFIED BY JSG
CONC. FACTOR INSTRUMENT b COMPOUNDS DETECTED 7

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Chloromethane	ND		Trichloroethene	ND
	Bromomethane	ND		Dibromochloromethane *	ND
1	Vinyl Chloride	12.5		1,1,2-Trichloroethane *	ND
2	Chloroethane	7.6		cis-1,3-Dichloropropene *	ND
	Methylene Chloride	ND		2-Chloroethylvinyl Ether	ND
3	Trichlorofluoromethane	3.2		Bromoform	ND
4	1,1-Dichloroethene	2.5		1,1,2,2-Tetrachloroethane #	ND
	1,1-Dichloroethane	ND	6	Tetrachloroethylene #	15.1
	trans-1,2-Dichloroethene	ND	7	Chlorobenzene	2.7
	Chloroform	ND		1,3-Dichlorobenzene	ND
	1,2-Dichloroethane	ND		1,2-Dichlorobenzene	ND
5	1,1,1-Trichloroethane	25.0		1,4-Dichlorobenzene	ND
	Carbon Tetrachloride	ND			
	Bromodichloromethane	ND			
	1,2-Dichloropropane	ND			
	trans-1,3-Dichloropropene	ND			

CORPORATION

PAGE 29 Analytical Serv REPORT LAB # 85-02-027
RECEIVED: 02/06/85 Results by Sample Continued From Above

SAMPLE ID 850912 GA FRACTION 06A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 02/05/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT

SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

CORPORATION

PAGE 30 Analytical Serv REPORT LAB # 85-02-027
RECEIVED: 02/06/85 Results by Sample

SAMPLE ID 850912 QA FRACTION 06B TEST CODE GC 602 NAME EPA Method 602/GC
Date & Time Collected 02/05/85 Category

DATA FILE D DATE INJECTED 02/13/85 ANALYST MCL VERIFIED BY JSG
CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT.
SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79).

CORPORATION

PAGE 31 Analytical Serv REPORT LAB # 85-02-027
RECEIVED: 02/06/85 Results by Sample

SAMPLE ID 850912 QA FRACTION Q6C TEST CODE H1RCRA NAME RCRA Herbicides
Date & Time Collected 02/05/85 Category

DATE EXTRACTED 02/14/85 DATE INJECTED 02/26/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER HERBICIDES	RESULT	DET. LIMIT
2,4-D	ND	.05			
2,4,5-TP (Silvex)	ND	.01			
2,4,5-T	ND	.002			

NOTES AND DEFINITIONS FOR THIS REPORT.
ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

SAMPLE ID 850912 QA FRACTION Q6C TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 02/05/85 Category

DATE EXTRACTED 02/11/85 DATE INJECTED 02/20/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER PESTICIDES	RESULT	DET. LIMIT
Lindane	ND	0.1			
Endrin	ND	0.1			
Methoxychlor	ND	1.0			
Toxaphene	ND	1.0			
Chlordane	ND	1.0			

NOTES AND DEFINITIONS FOR THIS REPORT.

SAMPLE ID 850912 QA FRACTION Q6C TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 02/05/85 Category

ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

CORPORATION

PAGE 33 Analytical Serv REPORT LAB # 85-02-027
RECEIVED: 02/06/85 Results by Sample

SAMPLE ID 850913 FRACTION Q7F TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 02/05/85 Category

DATE ANALYZED 02/19/85 VERIFIED BY DLH

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	< .002	AS	Arsenic	< .060
BA	Barium	0.44	HG	Mercury	0.0007
CD	Cadmium	< .002	PB	Lead	< .080
CR	Chromium	< .005	SE	Selenium	< .080

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/ml unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

CORPORATION

PAGE 34 Analytical Serv REPORT LAB # 85-02-027
RECEIVED: 02/06/85 Results by Sample

SAMPLE ID 850913 FRACTION 07A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 02/05/85 Category

DATA FILE G DATE INJECTED 02/08/85 ANALYST MCL VERIFIED BY JSG
CONC. FACTOR INSTRUMENT q COMPOUNDS DETECTED 6

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Chloromethane	ND	5	Trichloroethene	3410
	Bromomethane	ND		Dibromochloromethane *	ND
1	Vinyl Chloride	7.2		1,1,2-Trichloroethane *	ND
	Chloroethane	ND		cis-1,3-Dichloropropene *	ND
	Methylene Chloride	ND		2-Chloroethylvinyl Ether	ND
2	Trichlorofluoromethane	3.5		Bromoform	ND
3	1,1-Dichloroethene	7.9		1,1,2,2-Tetrachloroethane #	ND
	1,1-Dichloroethane	ND		Tetrachloroethylene #	ND
	trans-1,2-Dichloroethene	ND	6	Chlorobenzene	3.5
	Chloroform	ND		1,3-Dichlorobenzene	ND
	1,2-Dichloroethane	ND		1,2-Dichlorobenzene	ND
	1,1,1-Trichloroethane	ND		1,4-Dichlorobenzene	ND
	Carbon Tetrachloride	ND			
	Bromodichloromethane	ND			
4	1,2-Dichloropropane	2.3			
	trans-1,3-Dichloropropene	ND			

CORPORATION

PAGE 35 Analytical Serv REPORT LAB # 85-02-027
RECEIVED: 02/06/85 Results by Sample Continued From Above

SAMPLE ID 850913 FRACTION 07A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 02/05/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

CORPORATION

PAGE 36 Analytical Serv REPORT LAB # 85-02-027
RECEIVED: 02/06/85 Results by Sample

SAMPLE ID 850913 FRACTION 07B TEST CODE GC 602 NAME EPA Method 602/GC
Date & Time Collected 02/05/85 Category

DATA FILE D DATE INJECTED 02/13/85 ANALYST RAA VERIFIED BY JSG
CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT:
SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79).

CORPORATION

PAGE 37 Analytical Serv REPORT LAB # 85-02-027
RECEIVED: 02/06/85 Results by Sample

SAMPLE ID 850913 FRACTION 07C TEST CODE H1RCRA NAME RCRA Herbicides
Date & Time Collected 02/05/85 Category

DATE EXTRACTED 02/14/85 DATE INJECTED 02/26/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER HERBICIDES	RESULT	DET. LIMIT
2,4-D	ND	.05			
2,4,5-TP (Silvex)	ND	.01			
2,4,5-T	ND	.002			

NOTES AND DEFINITIONS FOR THIS REPORT.
ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

SAMPLE ID 850913 FRACTION 07C TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 02/05/85 Category

DATE EXTRACTED 02/11/85 DATE INJECTED 02/20/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER PESTICIDES	RESULT	DET. LIMIT
Lindane	ND	0.1			
Endrin	ND	0.1			
Methoxychlor	ND	1.0			
Toxaphene	ND	1.0			
Chlordane	ND	1.0			

NOTES AND DEFINITIONS FOR THIS REPORT

CORPORATION

PAGE 38 Analytical Serv REPORT LAB # 85-02-027
RECEIVED: 02/06/85 Results by Sample Continued From Above

SAMPLE ID 850913 FRACTION O/C TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 02/05/85 Category

ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

CORPORATION

PAGE 39 Analytical Serv REPORT LAB # 85-02-027
RECEIVED: 02/06/85 Results by Sample

SAMPLE ID 850913 QA FRACTION Q8A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 02/05/85 Category

DATA FILE Q DATE INJECTED 02/08/85 ANALYST MCL VERIFIED BY JSG
DILUTION FACTOR INSTRUMENT q COMPOUNDS DETECTED 6

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Chloromethane	ND	5	Trichloroethene	3280
	Bromomethane	ND		Dibromochloromethane *	ND
1	Vinyl Chloride	6.9		1,1,2-Trichloroethane *	ND
	Chloroethane	ND		cis-1,3-Dichloropropene *	ND
	Methylene Chloride	ND		2-Chloroethylvinyl Ether	ND
2	Trichlorofluoromethane	3.4		Bromoform	ND
3	1,1-Dichloroethene	8.1		1,1,2,2-Tetrachloroethane #	ND
	1,1-Dichloroethane	ND		Tetrachloroethylene #	ND
	trans-1,2-Dichloroethene	ND	6	Chlorobenzene	3.7
	Chloroform	ND		1,3-Dichlorobenzene	ND
	1,2-Dichloroethane	ND		1,2-Dichlorobenzene	ND
	1,1,1-Trichloroethane	ND		1,4-Dichlorobenzene	ND
	Carbon Tetrachloride	ND			
	Bromodichloromethane	ND			
4	1,2-Dichloropropane	2.3			
	trans-1,3-Dichloropropene	ND			

SAMPLE ID 850913 QA FRACTION 08A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 02/05/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

CORPORATION

PAGE 41 Analytical Serv REPORT LAB # 85-02-027
RECEIVED: 02/06/85 Results by Sample

SAMPLE ID 850913 QA FRACTION 08B TEST CODE GC 602 NAME EPA Method 602/GC
Date & Time Collected 02/05/85 Category

DATA FILE D DATE INJECTED 02/13/85 ANALYST RAA VERIFIED BY JSG
CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT
SCAN = scan number or retention time on chromatogram
All results reported in ug/L unless otherwise specified
ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79)

CORPORATION

PAGE 1 Analytical Serv REPORT LAB # 85-02-028

RECEIVED 02/08/85 03/14/85 10:29:03

REPORT Radian
TO Bl 4
Austin

ATTEN Larry Fremar

CLIENT CHEVRON, USA SAMPLES 2
COMPANY Caldwell AFS
FACILITY

WORK ID site 4 water
TAKEN 02/07/85
TRANS Fed Ex
TYPE
P O # 214-114-02-44
INVOICE under separate cover

PREPARED Radian Analytical Services
BY 8501 MoPac Blvd
P.O. Box 9948
Austin, Texas 78766
ATTEN
PHONE (512) 454-4797

CERTIFIED BY

CONTACT CONOVER

NOTE: Second column confirmation performed for EPA 601, splits -01 and -02. EPA 602 run at 1/100 dilution due to non-602 interference.

Footnotes and Comments

* Indicates a value less than 5 times the detection limit. Potential error for such low values ranges between 50 and 100%.

@ Indicates that spike recovery for this analysis on the specific matrix was not within acceptable limits indicating an interferent present.

SAMPLE IDENTIFICATION

1) 850914
2) 850914 MS

Analytical Serv TEST CODES and NAMES used on this report

8F MET	RCRA Metals
8% 509	Extraction only-509B Herb
8% 608	Extraction only - 608
GC 601	EPA Method 601/GC
GC 602	EPA Method 602/GC
HERCRA	RCRA Herbicides
OMG IR	Oil and Grease, Infrared
PERCRA	RCRA Pesticides
PHEN A	Total Phenolics
TOC	Total Organic Carbon

CORPORATION

PAGE 2 Analytical Serv REPORT LAB # 85-02-028
RECEIVED: 02/06/85 RESULTS BY TEST

TEST CODE default units	Sample 01 (entered units)
EX_507 date complete	02/14/85
EX_608 date complete	02/11/85
ONG_IR mg/L	<1
PHEN_A mg/L	0.039
TOC mg/L	6

CORPORATION

PAGE 3 Analytical Serv REPORT LAB # 85-02-028
RECEIVED: 02/06/85 Results by Sample

SAMPLE ID 850914 FRACTION 01F TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 02/05/85 Category

DATE ANALYZED 02/18/85 VERIFIED BY DLH

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	< .002	AS	Arsenic	< .060
BA	Barium	0.41	HG	Mercury	0.0005
CD	Cadmium	< .002	PB	Lead	< .080
CR	Chromium	< .005	SE	Selenium	< .080

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/ml unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

CORPORATION

PAGE 4 Analytical Serv REPORT LAB # 85-02-028
RECEIVED: 02/06/85 Results by Sample

SAMPLE ID 850914 FRACTION 01A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 02/05/85 Category

DATA FILE g DATE INJECTED 02/07/85 ANALYST RAA VERIFIED BY JSG
CONC. FACTOR INSTRUMENT g COMPOUNDS DETECTED 1

SCAN	COMPOUND	RESULT
	Chloromethane	ND
	Bromomethane	ND
	Vinyl Chloride	ND
	Chloroethane	ND
	Methylene Chloride	ND
	Trichlorofluoromethane	ND
	1,1-Dichloroethene	ND
	1,1-Dichloroethane	ND
	trans-1,2-Dichloroethene	ND
	Chloroform	ND
	1,2-Dichloroethane	ND
	1,1,1-Trichloroethane	ND
	Carbon Tetrachloride	ND
	Bromodichloromethane	ND
	1,2-Dichloropropane	ND
	trans-1,3-Dichloropropene	ND
1	Trichloroethene	3380
	Dibromochloromethane *	ND
	1,1,2-Trichloroethane *	ND
	cis-1,3-Dichloropropene *	ND
	2-Chloroethylvinyl Ether	ND
	Bromoform	ND
	1,1,2,2-Tetrachloroethane #	ND
	Tetrachloroethylene #	ND
	Chlorobenzene	ND
	1,3-Dichlorobenzene	ND
	1,2-Dichlorobenzene	ND
	1,4-Dichlorobenzene	ND

CORPORATION

PAGE 5 Analytical Serv REPORT LAB # 85-02-028
RECEIVED: 02/06/85 Results by Sample Continued From Above

SAMPLE ID 850914 FRACTION 01A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 02/05/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
+Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

CORPORATION

PAGE 6 Analytical Serv REPORT LAB # 85-02-028
RECEIVED: 02/06/85 Results by Sample

SAMPLE ID 850914 FRACTION 01B TEST CODE GC 602 NAME EPA Method 602/GC
Date & Time Collected 02/05/85 Category

DATA FILE D DATE INJECTED 02/13/85 ANALYST RAA VERIFIED BY JSG
CONC FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT
SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified
ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79).

CORPORATION

PAGE 7 Analytical Serv REPORT LAB # 85-02-028
RECEIVED: 02/06/85 Results by Sample

SAMPLE ID 850914 FRACTION 01C TEST CODE H1RCRA NAME RCRA Herbicides
Date & Time Collected 02/05/85 Category

DATE EXTRACTED 02/15/85 DATE INJECTED 02/25/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER HERBICIDES	RESULT	DET. LIMIT
2,4-D	ND	.05			
2,4,5-TP (Silvex)	ND	.01			
2,4,5-T	ND	.002			

NOTES AND DEFINITIONS FOR THIS REPORT.
ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

SAMPLE ID 850914 FRACTION 01C TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 02/05/85 Category

DATE EXTRACTED 02/11/85 DATE INJECTED 02/20/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER PESTICIDES	RESULT	DET. LIMIT
Lindane	ND	0.1			
Endrin	ND	0.1			
Methoxychlor	ND	1.0			
Toxaphene	ND	1.0			
Chlordane	ND	1.0			

NOTES AND DEFINITIONS FOR THIS REPORT.

CORPORATION

PAGE 8 Analytical Serv REPORT LAB # 85-02-028
RECEIVED: 02/06/85 Results by Sample Continued From Above

SAMPLE ID 850914 FRACTION 01C TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 02/05/85 Category

ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

CORPORATION

PAGE 9 Analytical Serv REPORT LAB # 85-02-028
RECEIVED: 02/06/85 Results by Sample

SAMPLE ID 850914 QA FRACTION 02A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 02/05/85 Category

DATA FILE G DATE INJECTED 02/07/85 ANALYST RAA VERIFIED BY JSG
CONC FACTOR INSTRUMENT q COMPOUNDS DETECTED 1

SCAN	COMPOUND	RESULT
	Chloromethane	ND
	Bromomethane	ND
	Vinyl Chloride	ND
	Chloroethane	ND
	Methylene Chloride	ND
	Trichlorofluoromethane	ND
	1,1-Dichloroethene	ND
	1,1-Dichloroethane	ND
	trans-1,2-Dichloroethene	ND
	Chloroform	ND
	1,2-Dichloroethane	ND
	1,1,1-Trichloroethane	ND
	Carbon Tetrachloride	ND
	Bromodichloromethane	ND
	1,2-Dichloropropane	ND
	trans-1,3-Dichloropropene	ND
1	Trichloroethene	4290
	Dibromochloromethane *	ND
	1,1,2-Trichloroethane *	ND
	cis-1,3-Dichloropropene *	ND
	2-Chloroethylvinyl Ether	ND
	Bromoform	ND
	1,1,2,2-Tetrachloroethane #	ND
	Tetrachloroethylene #	ND
	Chlorobenzene	ND
	1,3-Dichlorobenzene	ND
	1,2-Dichlorobenzene	ND
	1,4-Dichlorobenzene	ND

CORPORATION

PAGE 10 Analytical Serv REPORT LAB # 85-02-028
RECEIVED: 02/06/85 Results by Sample Continued From Above

SAMPLE ID 850914 QA FRACTION 02A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 02/05/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

CORPORATION

PAGE 11 Analytical Serv REPORT LAB # 85-02-028
RECEIVED: 02/06/85 Results by Sample

SAMPLE ID 850914 QA FRACTION 02B TEST CODE GC 602 NAME EPA Method 602/GC
Date & Time Collected 02/05/85 Category

DATA FILE D DATE INJECTED 02/13/85 ANALYST RAA VERIFIED BY JSG
CONC FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT:
SCAN = scan number or retention time on chromatogram
All results reported in ug/L unless otherwise specified
ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79)

CORPORATION

PAGE 1 Analytical Serv REPORT LAB # 85-02-035

RECEIVED: 02/07/85 05/07/85 11:56:05

REPORT TO: Radian
Bl. 4
Austin

ATTEN: Larry French

CLIENT: CARSWELL DO6 SAMPLES: 10
COMPANY: Carswell AFB
FACILITY:

WORK ID: water, sites 1, 10, 11
TAKEN: JBC, DHG
TRANS: Fed Ex
TYPE:
P.O. #: 214-114-06-44
INVOICE: under separate cover

PREPARED BY: Radian Analytical Services
8501 MoPac Blvd.
P.O. Box 9948
Austin, Texas 78766

ATTEN:
PHONE: (512) 454-4797

CERTIFIED BY

CONTACT CONOVER

NOTE: Second column confirmation performed for EPA 601, splits -03, 04, 05, 06, 07, 08, 10. Dilutions for EPA 602 were 1/50 for splits 06-10; 1/100 for -04.

Footnotes and Comments

* Indicates a value less than 5 times the detection limit. Potential error for such low values ranges between 50 and 100%.

@ Indicates that spike recovery for this analysis on the specific matrix was not within acceptable limits indicating an interferent present.

SAMPLE IDENTIFICATION

01	85-0918
02	85-0918 QA
03	85-0915
04	85-0915 QA
05	85-0916
06	85-0916 QA
07	85-0919
08	85-0919 QA
09	85-0922
10	85-0922 QA

Analytical Serv TEST CODES and NAMES used on this report

EP MET	RCRA Metals
EX 509	Extraction only-509B Herb.
EX 608	Extraction only - 608
GC 601	EPA Method 601/GC
GC 602	EPA Method 602/GC
H1RCRA	RCRA Herbicides
ONG IR	Oil and Grease, Infrared
P1RCRA	RCRA Pesticides
PHEN A	Total Phenolics
TOC	Total Organic Carbon
TOX 1	TOX Single Analysis

RECEIVED: 02/07/85 RESULTS BY TEST

TEST CODE default units	Sample 01 (entered units)	Sample 02 (entered units)	Sample 03 (entered units)	Sample 05 (entered units)	Sample 07 (entered units)
EX_509 date complete	02/15/85	02/15/85			
EX_608 date complete	02/12/85	02/12/85			
ONG_IR mg/L	170	190	270	310	270
PHEN_A mg/L	0.074				
TOC mg/L	3		2	5	1
TOX_1 mg/L	0.01	0.17	0.08	0.16	0.05

TEST CODE default units	Sample 09 (entered units)
EX_509 date complete	02/15/85
EX_608 date complete	02/12/85
ONG_IR mg/L	200
PHEN_A mg/L	<.005
TOC mg/L	15
TOX_1 mg/L	0.04

CORPORATION

PAGE 3 Analytical Serv REPORT LAB # 85-02-035
RECEIVED: 02/07/85 Results by Sample

SAMPLE ID 85-0918 FRACTION 01G TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 02/06/85 Category

DATE ANALYZED 02/19/85 VERIFIED BY DLH

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	<.002	AS	Arsenic	<.060
BA	Barium	0.34	HG	Mercury	0.0006
CD	Cadmium	<.002	PB	Lead	<.080
CR	Chromium	<.005	SE	Selenium	<.080

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/ml unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

CORPORATION

PAGE 4 Analytical Serv REPORT LAB # 85-02-035
RECEIVED: 02/07/85 Results by Sample

SAMPLE ID 85-0918 FRACTION 01A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 02/06/85 Category

DATA FILE G DATE INJECTED 02/07/85 ANALYST RAA VERIFIED BY JSG
CONC. FACTOR INSTRUMENT g COMPOUNDS DETECTED 1

SCAN	COMPOUND	RESULT
	Chloromethane	ND
	Bromomethane	ND
	Vinyl Chloride	ND
	Chloroethane	ND
	Methylene Chloride	ND
	Trichlorofluoromethane	ND
	1,1-Dichloroethene	ND
	1,1-Dichloroethane	ND
	trans-1,2-Dichloroethene	ND
	Chloroform	ND
	1,2-Dichloroethane	ND
	1,1,1-Trichloroethane	ND
	Carbon Tetrachloride	ND
	Bromodichloromethane	ND
	1,2-Dichloropropane	ND
	trans-1,3-Dichloropropene	ND

SCAN	COMPOUND	RESULT
1	Trichloroethene	1.3
	Dibromochloromethane *	ND
	1,1,2-Trichloroethane *	ND
	cis-1,3-Dichloropropene *	ND
	2-Chloroethylvinyl Ether	ND
	Bromoform	ND
	1,1,2,2-Tetrachloroethane #	ND
	Tetrachloroethylene #	ND
	Chlorobenzene	ND
	1,3-Dichlorobenzene	ND
	1,2-Dichlorobenzene	ND
	1,4-Dichlorobenzene	ND

CORPORATION

PAGE 5 Analytical Serv REPORT LAB # 85-02-035
RECEIVED: 02/07/85 Results by Sample Continued From Above

SAMPLE ID 85-0918 FRACTION 01A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 02/06/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

CORPORATION

PAGE 6 Analytical Serv REPORT LAB # 85-02-035
RECEIVED: 02/07/85 Results by Sample

SAMPLE ID 85-0918 FRACTION 01B TEST CODE GC 602 NAME EPA Method 602/GC
Date & Time Collected 02/06/85 Category

DATA FILE D DATE INJECTED 02/13/85 ANALYST RAA VERIFIED BY JSG
CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT.
SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79).

CORPORATION

PAGE 7 Analytical Serv REPORT LAB # 85-02-035
RECEIVED: 02/07/85 Results by Sample

SAMPLE ID 85-0918 FRACTION 01F TEST CODE H1RCRA NAME RCRA Herbicides
Date & Time Collected 02/06/85 Category

DATE EXTRACTED 02/15/85 DATE INJECTED 02/25/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER HERBICIDES	RESULT	DET. LIMIT
2,4-D	ND	.05			
2,4,5-TP (Silvex)	ND	.01			
2,4,5-T	ND	.002			

NOTES AND DEFINITIONS FOR THIS REPORT.
ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

SAMPLE ID 85-0918 FRACTION 01F TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 02/06/85 Category

DATE EXTRACTED DATE INJECTED VERIFIED BY
CONCENTRATION FACTOR ANALYST

COMPOUND	RESULT	DET. LIMIT	OTHER PESTICIDES	RESULT	DET. LIMIT
Lindane	NA				
Endrin	NA				
Methoxychlor	NA				
Toxaphene	NA				

NOTES AND DEFINITIONS FOR THIS REPORT.

SAMPLE ID 85-0918 FRACTION 01F TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 02/06/85 Category

ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

CORPORATION

PAGE 9 Analytical Serv REPORT LAB # 85-02-035
RECEIVED: 02/07/85 Results by Sample

SAMPLE ID 85-0918 QA FRACTION 02A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 02/06/85 Category

DATA FILE A DATE INJECTED 02/08/85 ANALYST MCL VERIFIED BY JSG
CONC. FACTOR INSTRUMENT a COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT
	Chloromethane	ND
	Bromomethane	ND
	Vinyl Chloride	ND
	Chloroethane	ND
	Methylene Chloride	ND
	Trichlorofluoromethane	ND
	1,1-Dichloroethene	ND
	1,1-Dichloroethane	ND
	trans-1,2-Dichloroethene	ND
	Chloroform	ND
	1,2-Dichloroethane	ND
	1,1,1-Trichloroethane	ND
	Carbon Tetrachloride	ND
	Bromodichloromethane	ND
	1,2-Dichloropropane	ND
	trans-1,3-Dichloropropene	ND

SCAN	COMPOUND	RESULT
	Trichloroethene	ND
	Dibromochloromethane *	ND
	1,1,2-Trichloroethane *	ND
	cis-1,3-Dichloropropene *	ND
	2-Chloroethylvinyl Ether	ND
	Bromoform	ND
	1,1,2,2-Tetrachloroethane #	ND
	Tetrachloroethylene #	ND
	Chlorobenzene	ND
	1,3-Dichlorobenzene	ND
	1,2-Dichlorobenzene	ND
	1,4-Dichlorobenzene	ND

SAMPLE ID 85-0918 QA FRACTION 02A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 02/06/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

CORPORATION

PAGE 11 Analytical Serv REPORT LAB # 85-02-035
RECEIVED: 02/07/85 Results by Sample

SAMPLE ID 85-0918 QA FRACTION 02B TEST CODE GC 602 NAME EPA Method 602/GC
Date & Time Collected 02/06/85 Category

DATA FILE D DATE INJECTED 02/14/85 ANALYST MCL VERIFIED BY JSG
CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT.
SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 602. (Federal Register, 12/3/79).

SAMPLE ID 85-0918 QA FRACTION 02E TEST CODE H1RCRA NAME RCRA Herbicides
Date & Time Collected 02/06/85 Category

DATE EXTRACTED 02/15/85 DATE INJECTED 02/25/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER HERBICIDES	RESULT	DET. LIMIT
2,4-D	ND	.05			
2,4,5-TP (Silvex)	ND	.01			
2,4,5-T	ND	.002			

NOTES AND DEFINITIONS FOR THIS REPORT.
ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

SAMPLE ID 85-0918 QA FRACTION 02E TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 02/06/85 Category

DATE EXTRACTED DATE INJECTED VERIFIED BY
CONCENTRATION FACTOR ANALYST

COMPOUND	RESULT	DET. LIMIT	OTHER PESTICIDES	RESULT	DET. LIMIT
Lindane	NA				
Endrin	NA				
Methoxychlor	NA				
Toxaphene	NA				

NOTES AND DEFINITIONS FOR THIS REPORT.

SAMPLE ID 85-0918 QA FRACTION 02E TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 02/06/85 Category

ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

CORPORATION

PAGE 14 Analytical Serv REPORT LAB # 85-02-035
RECEIVED: 02/07/85 Results by Sample

SAMPLE ID 85-0915 FRACTION 03A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 02/06/85 Category

DATA FILE A DATE INJECTED 02/08/85 ANALYST MCL VERIFIED BY JSG
CONC. FACTOR INSTRUMENT a COMPOUNDS DETECTED 5

SCAN	COMPOUND	RESULT
	Chloromethane	ND
	Bromomethane	ND
1	Vinyl Chloride	8.6
	Chloroethane	ND
	Methylene Chloride	ND
2	Trichlorofluoromethane	5.3
3	1,1-Dichloroethene	6.8
	1,1-Dichloroethane	ND
	trans-1,2-Dichloroethene	ND
	Chloroform	ND
	1,2-Dichloroethane	ND
	1,1,1-Trichloroethane	ND
	Carbon Tetrachloride	ND
	Bromodichloromethane	ND
	1,2-Dichloropropane	ND
	trans-1,3-Dichloropropene	ND

SCAN	COMPOUND	RESULT
4	Trichloroethene	4510
	Dibromochloromethane *	ND
	1,1,2-Trichloroethane *	ND
	cis-1,3-Dichloropropene *	ND
	2-Chloroethylvinyl Ether	ND
	Bromoform	ND
	1,1,2,2-Tetrachloroethane #	ND
5	Tetrachloroethylene #	36.4
	Chlorobenzene	ND
	1,3-Dichlorobenzene	ND
	1,2-Dichlorobenzene	ND
	1,4-Dichlorobenzene	ND

SAMPLE ID 85-0915 FRACTION 03A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 02/06/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

CORPORATION

PAGE 16 Analytical Serv REPORT LAB # 85-02-035
RECEIVED: 02/07/85 Results by Sample

SAMPLE ID 85-0915 FRACTION 03B TEST CODE GC 602 NAME EPA Method 602/GC
Date & Time Collected 02/06/85 Category

DATA FILE D DATE INJECTED 02/14/85 ANALYST MCL VERIFIED BY JSG
CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT.
SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79).

CORPORATION

Analytical Serv REPORT LAB # 85-02-035

RECEIVED: 02/07/85

Results by Sample

SAMPLE ID 85-0915 QA FRACTION 04A TEST CODE GC 601 NAME EPA Method 601/GC

Date & Time Collected 02/06/85 Category

DATA FILE A DATE INJECTED 02/08/85 ANALYST MCL VERIFIED BY JSG

CONC. FACTOR INSTRUMENT a COMPOUNDS DETECTED 2

SCAN	COMPOUND	RESULT
	Chloromethane	ND
	Bromomethane	ND
	Vinyl Chloride	ND
	Chloroethane	ND
	Methylene Chloride	ND
	Trichlorofluoromethane	ND
	1,1-Dichloroethene	ND
	1,1-Dichloroethane	ND
	trans-1,2-Dichloroethene	ND
	Chloroform	ND
	1,2-Dichloroethane	ND
	1,1,1-Trichloroethane	ND
	Carbon Tetrachloride	ND
	Bromodichloromethane	ND
	1,2-Dichloropropane	ND
	trans-1,3-Dichloropropene	ND

SCAN	COMPOUND	RESULT
1	Trichloroethene	4430
	Dibromochloromethane *	ND
	1,1,2-Trichloroethane *	ND
	cis-1,3-Dichloropropene *	ND
	2-Chloroethylvinyl Ether	ND
	Bromoform	ND
	1,1,2,2-Tetrachloroethane #	ND
2	Tetrachloroethylene #	102
	Chlorobenzene	ND
	1,3-Dichlorobenzene	ND
	1,2-Dichlorobenzene	ND
	1,4-Dichlorobenzene	ND

SAMPLE ID 85-0915 QA FRACTION 04A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 02/06/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

CORPORATION

PAGE 19 Analytical Serv REPORT LAB # 85-02-035
RECEIVED: 02/07/85 Results by Sample

SAMPLE ID 85-0915 QA FRACTION 04B TEST CODE GC 602 NAME EPA Method 602/GC
Date & Time Collected 02/06/85 Category

DATA FILE D DATE INJECTED 02/14/85 ANALYST MCL VERIFIED BY JSG
CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT.
SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79).

CORPORATION

Analytical Serv REPORT LAB # 85-02-035

RECEIVED: 02/07/85

Results by Sample

SAMPLE ID 85-0916 FRACTION 05A TEST CODE GC 601 NAME EPA Method 601/GC

Date & Time Collected 02/06/85 Category

DATA FILE A DATE INJECTED 02/08/85 ANALYST RAA VERIFIED BY JSG

CONC. FACTOR INSTRUMENT a COMPOUNDS DETECTED 1

SCAN	COMPOUND	RESULT
	Chloromethane	ND
	Bromomethane	ND
	Vinyl Chloride	ND
	Chloroethane	ND
	Methylene Chloride	ND
	Trichlorofluoromethane	ND
	1,1-Dichloroethene	ND
	1,1-Dichloroethane	ND
	trans-1,2-Dichloroethene	ND
	Chloroform	ND
	1,2-Dichloroethane	ND
	1,1,1-Trichloroethane	ND
	Carbon Tetrachloride	ND
	Bromodichloromethane	ND
	1,2-Dichloropropane	ND
	trans-1,3-Dichloropropene	ND
1	Trichloroethene	3660
	Dibromochloromethane *	ND
	1,1,2-Trichloroethane *	ND
	cis-1,3-Dichloropropene *	ND
	2-Chloroethylvinyl Ether	ND
	Bromoform	ND
	1,1,2,2-Tetrachloroethane #	ND
	Tetrachloroethylene #	ND
	Chlorobenzene	ND
	1,3-Dichlorobenzene	ND
	1,2-Dichlorobenzene	ND
	1,4-Dichlorobenzene	ND

SAMPLE ID 85-0916 FRACTION 05A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 02/06/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

CORPORATION

Analytical Serv REPORT LAB # 85-02-035

RECEIVED: 02/07/85

Results by Sample

SAMPLE ID 85-0916 FRACTION 05B TEST CODE GC 602 NAME EPA Method 602/GC

Date & Time Collected 02/06/85 Category

DATA FILE D DATE INJECTED 02/14/85 ANALYST RAA VERIFIED BY JSG

CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

All results reported in ug/L unless otherwise specified.

ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79).

CORPORATION

Analytical Serv REPORT LAB # 85-02-035

RECEIVED: 02/07/85

Results by Sample

SAMPLE ID 85-0916 QA FRACTION 06A TEST CODE GC 601 NAME EPA Method 601/GC

Date & Time Collected 02/06/85 Category

DATA FILE A DATE INJECTED 02/08/85 ANALYST RAA VERIFIED BY JSG

CONC. FACTOR INSTRUMENT a COMPOUNDS DETECTED 1

SCAN	COMPOUND	RESULT
	Chloromethane	ND
	Bromomethane	ND
	Vinyl Chloride	ND
	Chloroethane	ND
	Methylene Chloride	ND
	Trichlorofluoromethane	ND
	1,1-Dichloroethene	ND
	1,1-Dichloroethane	ND
	trans-1,2-Dichloroethene	ND
	Chloroform	ND
	1,2-Dichloroethane	ND
	1,1,1-Trichloroethane	ND
	Carbon Tetrachloride	ND
	Bromodichloromethane	ND
	1,2-Dichloropropane	ND
	trans-1,3-Dichloropropene	ND
1	Trichloroethene	1870
	Dibromochloromethane *	ND
	1,1,2-Trichloroethane *	ND
	cis-1,3-Dichloropropene *	ND
	2-Chloroethylvinyl Ether	ND
	Bromoform	ND
	1,1,2,2-Tetrachloroethane #	ND
	Tetrachloroethylene #	ND
	Chlorobenzene	ND
	1,3-Dichlorobenzene	ND
	1,2-Dichlorobenzene	ND
	1,4-Dichlorobenzene	ND

SAMPLE ID 85-0916 QA FRACTION 06A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 02/06/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

CORPORATION

Analytical Serv REPORT LAB # 85-02-035

RECEIVED: 02/07/85

Results by Sample

SAMPLE ID 85-0916 QA FRACTION 06B TEST CODE GC 602 NAME EPA Method 602/GC

Date & Time Collected 02/06/85 Category

DATA FILE D DATE INJECTED 02/14/85 ANALYST RAA VERIFIED BY JSQ

CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

All results reported in ug/L unless otherwise specified.

ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79).

CORPORATION

Analytical Serv REPORT LAB # 85-02-035

RECEIVED: 02/07/85

Results by Sample

SAMPLE ID 85-0919 FRACTION 07A TEST CODE GC 601 NAME EPA Method 601/GC

Date & Time Collected 02/06/85 Category

DATA FILE A DATE INJECTED 02/08/85 ANALYST RAA VERIFIED BY JSG

CONC. FACTOR INSTRUMENT a COMPOUNDS DETECTED 1

SCAN	COMPOUND	RESULT
	Chloromethane	ND
	Bromomethane	ND
	Vinyl Chloride	ND
	Chloroethane	ND
	Methylene Chloride	ND
	Trichlorofluoromethane	ND
	1,1-Dichloroethene	ND
	1,1-Dichloroethane	ND
	trans-1,2-Dichloroethene	ND
	Chloroform	ND
	1,2-Dichloroethane	ND
	1,1,1-Trichloroethane	ND
	Carbon Tetrachloride	ND
	Bromodichloromethane	ND
	1,2-Dichloropropane	ND
	trans-1,3-Dichloropropene	ND

SCAN	COMPOUND	RESULT
1	Trichloroethene	4120
	Dibromochloromethane *	ND
	1,1,2-Trichloroethane *	ND
	cis-1,3-Dichloropropene *	ND
	2-Chloroethylvinyl Ether	ND
	Bromoform	ND
	1,1,2,2-Tetrachloroethane #	ND
	Tetrachloroethylene #	ND
	Chlorobenzene	ND
	1,3-Dichlorobenzene	ND
	1,2-Dichlorobenzene	ND
	1,4-Dichlorobenzene	ND

SAMPLE ID 85-0919 FRACTION 07A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 02/06/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

Analytical Serv REPORT LAB # 85-02-035

RECEIVED: 02/07/85

Results by Sample

SAMPLE ID 85-0919 FRACTION 07B TEST CODE GC 602 NAME EPA Method 602/GC

Date & Time Collected 02/06/85 Category

DATA FILE D DATE INJECTED 02/14/85 ANALYST RAA VERIFIED BY JSG

CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

All results reported in ug/L unless otherwise specified.

ND = not detected at EPA detection limit method 602. (Federal Register, 12/3/79).

CORPORATION

Analytical Serv REPORT LAB # 85-02-035

RECEIVED: 02/07/85

Results by Sample

SAMPLE ID 85-0919 QA FRACTION 08A TEST CODE GC 601 NAME EPA Method 601/GC

Date & Time Collected 02/06/85 Category

DATA FILE A DATE INJECTED 02/08/85 ANALYST RAA VERIFIED BY JSG

CONC. FACTOR INSTRUMENT a COMPOUNDS DETECTED 1

SCAN	COMPOUND	RESULT
	Chloromethane	ND
	Bromomethane	ND
	Vinyl Chloride	ND
	Chloroethane	ND
	Methylene Chloride	ND
	Trichlorofluoromethane	ND
	1,1-Dichloroethene	ND
	1,1-Dichloroethane	ND
	trans-1,2-Dichloroethene	ND
	Chloroform	ND
	1,2-Dichloroethane	ND
	1,1,1-Trichloroethane	ND
	Carbon Tetrachloride	ND
	Bromodichloromethane	ND
	1,2-Dichloropropane	ND
	trans-1,3-Dichloropropene	ND
1	Trichloroethene	4020
	Dibromochloromethane *	ND
	1,1,2-Trichloroethane *	ND
	cis-1,3-Dichloropropene *	ND
	2-Chloroethylvinyl Ether	ND
	Bromoform	ND
	1,1,2,2-Tetrachloroethane #	ND
	Tetrachloroethylene #	ND
	Chlorobenzene	ND
	1,3-Dichlorobenzene	ND
	1,2-Dichlorobenzene	ND
	1,4-Dichlorobenzene	ND

SAMPLE ID 85-0919 QA FRACTION 08A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 02/06/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

CORPORATION

PAGE 31 Analytical Serv REPORT LAB # 85-02-035
RECEIVED: 02/07/85 Results by Sample

SAMPLE ID 85-0919 QA FRACTION 08B TEST CODE GC 602 NAME EPA Method 602/GC
Date & Time Collected 02/06/85 Category

DATA FILE D DATE INJECTED 02/14/85 ANALYST RAA VERIFIED BY JSG
CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT.
SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79).

CORPORATION

PAGE 32 Analytical Serv REPORT LAB # 85-02-035
RECEIVED: 02/07/85 Results by Sample

SAMPLE ID 85-0922 FRACTION 09G TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 02/06/85 Category

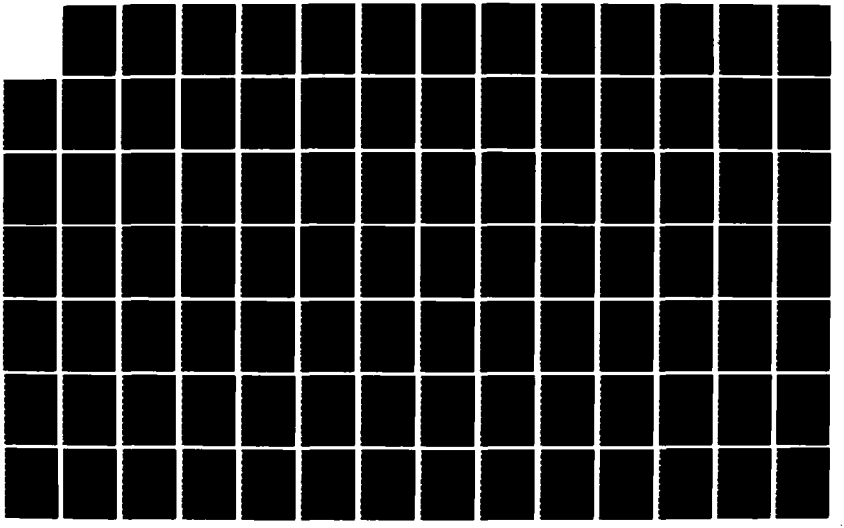
DATE ANALYZED 02/19/85 VERIFIED BY DLH

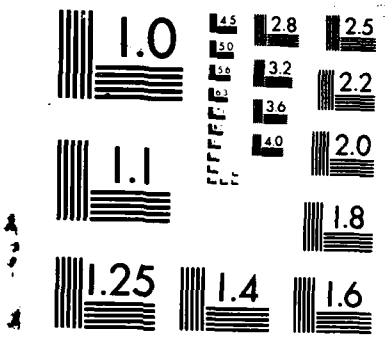
CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	<.002	AS	Arsenic	<.060
BA	Barium	0.18	HG	Mercury	0.0005
CD	Cadmium	<.002	PB	Lead	<.080
CR	Chromium	<.005	SE	Selenium	<.080

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/ml unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

AD-A174 196 INSTALLATION RESTORATION PROGRAM PHASE II 5/9
CONFIRMATION/QUANTIFICATION STAGE 1 VOLUME 2 APPENDIX A
(U) RADIAN CORP AUSTIN TX OCT 86 F33615-84-D-4402
UNCLASSIFIED F/G 13/2 NL





MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

CORPORATION

Analytical Serv REPORT LAB # 85-02-035

RECEIVED: 02/07/85

Results by Sample

SAMPLE ID 85-0922 FRACTION 09A TEST CODE GC 601 NAME EPA Method 601/GC

Date & Time Collected 02/06/85 Category

DATA FILE A DATE INJECTED 02/11/85 ANALYST MCL VERIFIED BY JSG

CONC. FACTOR INSTRUMENT a COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT
	Chloromethane	ND
	Bromomethane	ND
	Vinyl Chloride	ND
	Chloroethane	ND
	Methylene Chloride	ND
	Trichlorofluoromethane	ND
	1,1-Dichloroethene	ND
	1,1-Dichloroethane	ND
	trans-1,2-Dichloroethene	ND
	Chloroform	ND
	1,2-Dichloroethane	ND
	1,1,1-Trichloroethane	ND
	Carbon Tetrachloride	ND
	Bromodichloromethane	ND
	1,2-Dichloropropane	ND
	trans-1,3-Dichloropropene	ND

SCAN	COMPOUND	RESULT
	Trichloroethene	ND
	Dibromochloromethane *	ND
	1,1,2-Trichloroethane *	ND
	cis-1,3-Dichloropropene *	ND
	2-Chloroethylvinyl Ether	ND
	Bromoform	ND
	1,1,2,2-Tetrachloroethane #	ND
	Tetrachloroethylene #	ND
	Chlorobenzene	ND
	1,3-Dichlorobenzene	ND
	1,2-Dichlorobenzene	ND
	1,4-Dichlorobenzene	ND

Analytical Serv REPORT

LAB # 85-02-035

RECEIVED: 02/07/85

Results by Sample

Continued From Above

SAMPLE ID 85-0922 FRACTION 09A TEST CODE GC 601 NAME EPA Method 601/GC

Date & Time Collected 02/06/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

CORPORATION

PAGE 35 Analytical Serv REPORT LAB # 85-02-035
RECEIVED: 02/07/85 Results by Sample

SAMPLE ID 85-0922 FRACTION 09B TEST CODE GC 602 NAME EPA Method 602/GC
Date & Time Collected 02/06/85 Category

DATA FILE D DATE INJECTED 02/14/85 ANALYST RAA VERIFIED BY JSG
CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT.
SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 602. (Federal Register, 12/3/79).

CORPORATION

Analytical Serv REPORT LAB # 85-02-035

RECEIVED: 02/07/85

Results by Sample

SAMPLE ID 85-0922 FRACTION 09F TEST CODE H1RCRA NAME RCRA Herbicides

Date & Time Collected 02/06/85 Category

DATE EXTRACTED 02/15/85 DATE INJECTED 02/25/85 VERIFIED BY MSF

CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER HERBICIDES	RESULT	DET. LIMIT
2,4-D	ND	.05			
2,4,5-TP (Silvex)	ND	.01			
2,4,5-T	ND	.002			

NOTES AND DEFINITIONS FOR THIS REPORT.

ND = not detected at the specified detection limit.

All results reported in micrograms/liter unless otherwise specified.

SAMPLE ID 85-0922 FRACTION 09F TEST CODE P1RCRA NAME RCRA Pesticides

Date & Time Collected 02/06/85 Category

DATE EXTRACTED DATE INJECTED VERIFIED BY

CONCENTRATION FACTOR ANALYST

COMPOUND	RESULT	DET. LIMIT	OTHER PESTICIDES	RESULT	DET. LIMIT
Lindane	NA				
Endrin	NA				
Methoxychlor	NA				
Toxaphene	NA				

NOTES AND DEFINITIONS FOR THIS REPORT.

SAMPLE ID 85-0922 FRACTION 09F TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 02/06/85 Category

ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

CORPORATION

Analytical Serv REPORT LAB # 85-02-035

RECEIVED: 02/07/85

Results by Sample

SAMPLE ID 85-0922 QA FRACTION 10A TEST CODE GC 601 NAME EPA Method 601/GC

Date & Time Collected 02/06/85 Category

DATA FILE G DATE INJECTED 02/08/85 ANALYST RAA VERIFIED BY JSG

CONC. FACTOR INSTRUMENT g COMPOUNDS DETECTED 1

SCAN	COMPOUND	RESULT
	Chloromethane	ND
	Bromomethane	ND
	Vinyl Chloride	ND
	Chloroethane	ND
	Methylene Chloride	ND
	Trichlorofluoromethane	ND
	1,1-Dichloroethene	ND
	1,1-Dichloroethane	ND
	trans-1,2-Dichloroethene	ND
	Chloroform	ND
	1,2-Dichloroethane	ND
	1,1,1-Trichloroethane	ND
	Carbon Tetrachloride	ND
	Bromodichloromethane	ND
	1,2-Dichloropropane	ND
	trans-1,3-Dichloropropene	ND
1	Trichloroethene	1.4
	Dibromochloromethane *	ND
	1,1,2-Trichloroethane *	ND
	cis-1,3-Dichloropropene *	ND
	2-Chloroethylvinyl Ether	ND
	Bromoform	ND
	1,1,2,2-Tetrachloroethane #	ND
	Tetrachloroethylene #	ND
	Chlorobenzene	ND
	1,3-Dichlorobenzene	ND
	1,2-Dichlorobenzene	ND
	1,4-Dichlorobenzene	ND

SAMPLE ID 85-0922 QA FRACTION 10A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 02/06/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

CORPORATION

Analytical Serv REPORT LAB # 85-02-035

RECEIVED: 02/07/85

Results by Sample

SAMPLE ID 85-0922 QA FRACTION 10B TEST CODE GC 602 NAME EPA Method 602/GC

Date & Time Collected 02/06/85 Category

DATA FILE D DATE INJECTED 02/14/85 ANALYST RAA VERIFIED BY JSG

CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

All results reported in ug/L unless otherwise specified.

ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79).

CORPORATION

PAGE 1 Analytical Serv REPORT LAB # 85-02-036
RECEIVED 02/07/85 03/14/85 10:33:28

REPORT TO: Radian
BI 4
Austin

ATTEN: Larry Fresen

CLIENT: CARSWELL DOa SAMPLES: 6
COMPANY: Carswell AFB
FACILITY:

WORK ID: water, site 5
TAKEN: JBC, DHG
TRANS TYPE: Fed Ex
P O #: 214-114-05-44
INVOICE: under separate cover

PREPARED BY: Radian Analytical Services
8501 MoPac Blvd
P.O. Box 9948
Austin, Texas 78766
ATTEN:
PHONE: (512) 454-4797

CERTIFIED BY

CONTACT CONOVER

NOTE: Second column confirmation performed for EPA 601, splits 01 to 06

Footnotes and Comments

< Indicates a value less than 5 times the detection limit. Potential error for such low values ranges between 50 and 100%.

@ Indicates that spike recovery for this analysis on the specific matrix was not within acceptable limits indicating an interferent present.

SAMPLE IDENTIFICATION

01 85-0917
02 85-0917 QA
03 85-0920
04 85-0920 QA
05 85-0921
06 85-0921 QA

Analytical Serv TEST CODES and NAMES used on this report

EP MET	RCRA Metals
EX 509	Extraction only-509B Herb
EX 608	Extraction only - 608
GC 601	EPA Method 601/GC
GC 602	EPA Method 602/GC
HIRCRA	RCRA Herbicides
ONG IR	Oil and Grease, Infrared
PIRCRA	RCRA Pesticides
PHEN A	Total Phenolics
TOC	Total Organic Carbon
TOX 1	TOX Single Analysis

CORPORATION

PAGE 2 Analytical Serv REPORT LAB # 85-02-036
RECEIVED: 02/07/85 RESULTS BY TEST

TEST CODE default units	Sample 01 (entered units)	Sample 02 (entered units)	Sample 03 (entered units)	Sample 04 (entered units)	Sample 05 (entered units)
EX_509 date complete	02/15/85		02/15/85	02/15/85	02/15/85
EX_608 date complete	02/12/85		02/12/85	02/12/85	02/12/85
ONG_IR mg/L	220	210	59	43	45
PHEN_A mg/L	<.005		0.075	0.055	0.012
TOC mg/L	6		1	2	4
TOX_1 mg/L	0.04	0.03	0.05	1.5	1.1

TEST CODE default units	Sample 06 (entered units)
TOX_1 mg/L	1.3

CORPORATION

PAGE 3 Analytical Serv REPORT LAB # 85-02-036
RECEIVED: 02/07/85 Results by Sample

SAMPLE ID 85-0917 FRACTION 01G TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 02/06/85 Category

DATE ANALYZED 02/18/85 VERIFIED BY DLH

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	< 002	AS	Arsenic	< 060
BA	Barium	0 59	HG	Mercury	0.0003
CD	Cadmium	< 002	PB	Lead	< 080
CR	Chromium	< 005	SE	Selenium	< 080

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/ml unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

CORPORATION

PAGE 4 Analytical Serv REPORT LAB # 85-02-036
RECEIVED 02/07/85 Results by Sample

SAMPLE ID 85-0917 FRACTION 01A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 02/06/85 Category

DATA FILE B DATE INJECTED 02/08/85 ANALYST MCL VERIFIED BY JSG
CONC. FACTOR INSTRUMENT b COMPOUNDS DETECTED 4

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Chloromethane	ND	4	Trichloroethene	6.3
	Bromomethane	ND		Dibromochloromethane *	ND
1	Vinyl Chloride	135		1,1,2-Trichloroethane *	ND
	Chloroethane	ND		cis-1,3-Dichloropropene *	ND
	Methylene Chloride	ND		2-Chloroethylvinyl Ether	ND
	Trichlorofluoromethane	ND		Bromoform	ND
3	1,1-Dichloroethene	7.5		1,1,2,2-Tetrachloroethane #	ND
	1,1-Dichloroethane	ND		Tetrachloroethylene #	ND
	trans-1,2-Dichloroethene	ND		Chlorobenzene	ND
	Chloroform	ND		1,3-Dichlorobenzene	ND
	1,2-Dichloroethane	ND		1,2-Dichlorobenzene	ND
	1,1,1-Trichloroethane	ND		1,4-Dichlorobenzene	ND
	Carbon Tetrachloride	ND			
	Bromodichloromethane	ND			
	1,2-Dichloropropane	ND			
	trans-1,3-Dichloropropene	ND			

CORPORATION

PAGE 5 Analytical Serv REPORT LAB # 85-02-036
RECEIVED: 02/07/85 Results by Sample Continued From Above

SAMPLE ID 85-0917 FRACTION 01A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 02/06/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT

SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

CORPORATION

PAGE 6 Analytical Serv REPORT LAB # 85-02-036
RECEIVED: 02/07/85 Results by Sample

SAMPLE ID 85-0917 FRACTION 01B TEST CODE GC 602 NAME EPA Method 602/GC
Date & Time Collected 02/06/85 Category

DATA FILE D DATE INJECTED 02/15/85 ANALYST MCL VERIFIED BY JSG
CONC. FACTOR 1 INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT:
SCAN # scan number or retention time on chromatogram
All results reported in ug/L unless otherwise specified
ND = not detected at EPA detection limit method 602. (Federal Register, 12/3/79).

SAMPLE ID 85-0917 FRACTION 01F TEST CODE H1RCRA NAME RCRA Herbicides
Date & Time Collected 02/06/85 Category

DATE EXTRACTED 02/15/85 DATE INJECTED 02/25/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER HERBICIDES	RESULT	DET. LIMIT
2,4-D	ND	.05			
2,4,5-TP (Silvex)	ND	.01			
2,4,5-T	ND	.002			

NOTES AND DEFINITIONS FOR THIS REPORT.
ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

SAMPLE ID 85-0917 FRACTION 01F TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 02/06/85 Category

DATE EXTRACTED 02/12/85 DATE INJECTED 02/20/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER PESTICIDES	RESULT	DET. LIMIT
Lindane	ND	0.1			
Endrin	ND	0.1			
Methoxychlor	ND	1.0			
Toxaphene	ND	1.0			
Chlordane	ND	1.0			

NOTES AND DEFINITIONS FOR THIS REPORT.

CORPORATION

PAGE 8 Analytical Serv REPORT LAB # 85-02-036
RECEIVED: 02/07/85 Results by Sample Continued From Above

SAMPLE ID 85-0917 FRACTION 01F TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 02/06/85 Category

ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

CORPORATION

PAGE 5 Analytical Serv REPORT LAB # 85-02-036
RECEIVED: 02/07/85 Results by Sample

SAMPLE ID 85-091 DA FRACTION 02A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 02/06/85 Category

DATA FILE 8 DATE INJECTED 02/08/85 ANALYST MCL VERIFIED BY JSG
CONC FACTOR INSTRUMENT b COMPOUNDS DETECTED 1

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Chloromethane	ND		Trichloroethene	ND
	Bromomethane	ND		Dibromochloromethane *	ND
1	Vinyl Chloride	128		1,1,2-Trichloroethane *	ND
	Chloroethane	ND		cis-1,3-Dichloropropene *	ND
	Methylene Chloride	ND		2-Chloroethylvinyl Ether	ND
	Trichlorofluoromethane	ND		Bromoform	ND
	1,1-Dichloroethene	ND		1,1,2,2-Tetrachloroethane #	ND
	1,1-Dichloroethane	ND		Tetrachloroethylene #	ND
	trans-1,2-Dichloroethene	ND		Chlorobenzene	ND
	Chloroform	ND		1,3-Dichlorobenzene	ND
	1,2-Dichloroethane	ND		1,2-Dichlorobenzene	ND
	1,1,1 Trichloroethane	ND		1,4-Dichlorobenzene	ND
	Carbon Tetrachloride	ND			
	Bromodichloromethane	ND			
	1,2-Dichloropropane	ND			
	trans-1,3-Dichloropropene	ND			

CORPORATION

PAGE 10 Analytical Serv REPORT LAB # 85-02-036
RECEIVED 02/07/85 Results by Sample Continued From Above

SAMPLE ID 85-091/ QA FRACTION 02A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 02/06/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

CORPORATION

PAGE 11 Analytical Serv REPORT LAB # 85-02-036
RECEIVED: 02/07/85 Results by Sample

SAMPLE ID 85-0917 QA FRACTION 02B TEST CODE GC 602 NAME EPA Method 602/GC
Date & Time Collected 02/06/85 Category

DATA FILE B DATE INJECTED 02/15/85 ANALYST MCL VERIFIED BY JSG
CONC FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT:
SCAN = scan number or retention time on chromatogram
All results reported in ug/L unless otherwise specified
ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79).

CORPORATION

PAGE 12 Analytical Serv REPORT LAB # 85-02-036
RECEIVED: 02/07/85 Results by Sample

SAMPLE ID 85-0920 FRACTION 03G TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 02/06/85 Category

DATE ANALYZED 02/18/85 VERIFIED BY DLH

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	< 002	AS	Arsenic	< 060
BA	Barium	0 18	HG	Mercury	0 0007
CD	Cadmium	< 002	PB	Lead	< 080
CR	Chromium	< 005	SE	Selenium	< 080

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/ml unless otherwise specified.
NA = not analyzed
< = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

CORPORATION

PAGE 13 Analytical Serv REPORT LAB # 85-02-036
RECEIVED: 02/07/85 Results by Sample

SAMPLE ID 85-0920 FRACTION 03A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 02/06/85 Category

DATA FILE B DATE INJECTED 02/08/85 ANALYST RAA VERIFIED BY JSG
CONC FACTOR INSTRUMENT b COMPOUNDS DETECTED 1

SCAN	COMPOUND	RESULT
	Chloromethane	ND
	Bromomethane	ND
	Vinyl Chloride	ND
	Chloroethane	ND
	Methylene Chloride	ND
	Trichlorofluoromethane	ND
	1,1-Dichloroethene	ND
	1,1-Dichloroethane	ND
	trans-1,2-Dichloroethene	ND
	Chloroform	ND
	1,2-Dichloroethane	ND
	1,1,1-Trichloroethane	ND
	Carbon Tetrachloride	ND
	Bromodichloromethane	ND
	1,2-Dichloropropane	ND
	trans-1,3-Dichloropropene	ND
1	Trichloroethene	3200
	Dibromochloromethane *	ND
	1,1,2-Trichloroethane *	ND
	cis-1,3-Dichloropropene *	ND
	2-Chloroethylvinyl Ether	ND
	Bromoform	ND
	1,1,2,2-Tetrachloroethane #	ND
	Tetrachloroethylene #	ND
	Chlorobenzene	ND
	1,3-Dichlorobenzene	ND
	1,2-Dichlorobenzene	ND
	1,4-Dichlorobenzene	ND

CORPORATION

PAGE 14 Analytical Serv REPORT LAB # 85-02-036
RECEIVED: 02/07/85 Results by Sample Continued From Above

SAMPLE ID 85-0920 FRACTION 03A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 02/06/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT

SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

CORPORATION

PAGE 15 Analytical Serv REPORT LAB # 85-02-036
RECEIVED: 02/07/85 Results by Sample

SAMPLE ID 85-0920 FRACTION 03B TEST CODE GC 602 NAME EPA Method 602/GC
Date & Time Collected 02/06/85 Category

DATA FILE D DATE INJECTED 02/15/85 ANALYST MCL VERIFIED BY JSG
CONC FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT
SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79)

CORPORATION

PAGE 16 Analytical Serv REPORT LAB # 85-02-036
RECEIVED: 02/07/85 Results by Sample

SAMPLE ID 85-0920 FRACTION 03F TEST CODE HIRCRA NAME RCRA Herbicides
Date & Time Collected 02/06/85 Category

DATE EXTRACTED 02/15/85 DATE INJECTED 02/26/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER HERBICIDES	RESULT	DET. LIMIT
2,4-D	ND	.05			
2,4,5-TP (Silvex)	ND	.01			
2,4,5-T	ND	.002			

NOTES AND DEFINITIONS FOR THIS REPORT.
ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

SAMPLE ID 85-0920 FRACTION 03F TEST CODE PIRCRA NAME RCRA Pesticides
Date & Time Collected 02/06/85 Category

DATE EXTRACTED 02/13/85 DATE INJECTED 02/20/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER PESTICIDES	RESULT	DET. LIMIT
Lindane	ND	0.1			
Methoxychlor	ND	0.1			
Toxaphene	ND	1.0			
Chlordane	ND	1.0			

NOTES AND DEFINITIONS FOR THIS REPORT

CORPORATION

PAGE 1/ Analytical Serv REPORT LAB # 85-02-036
RECEIVED: 02/07/85 Results by Sample Continued From Above

SAMPLE ID 85-0920 FRACTION 03F TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 02/06/85 Category

ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

CORPORATION

PAGE 18 Analytical Serv REPORT LAB # 85-02-036
RECEIVED 02/07/85 Results by Sample

SAMPLE ID 85-0920 GA FRACTION 04G TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 02/06/85 Category

DATE ANALYZED 02/18/85 VERIFIED BY DLH

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	< 002	AS	Arsenic	< 060
BA	Barium	0 19	HG	Mercury	0 0003
CD	Cadmium	< 002	PB	Lead	< 080
CR	Chromium	< 005	SE	Selenium	< 080

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in mg/ml unless otherwise specified.
NA = not analyzed
< = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

CORPORATION

PAGE 19 Analytical Serv REPORT LAB # 85-02-036
RECEIVED: 02/07/85 Results by Sample

SAMPLE ID 85-0920 0A FRACTION 04A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 02/06/85 Category

DATA FILE B DATE INJECTED 02/08/85 ANALYST RAA VERIFIED BY JSG
CONC FACTOR INSTRUMENT b COMPOUNDS DETECTED 1

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Chloromethane	ND	1	Trichloroethene	3280
	Bromomethane	ND		Dibromochloromethane *	ND
	Vinyl Chloride	ND		1,1,2-Trichloroethane *	ND
	Chloroethane	ND		cis-1,3-Dichloropropene *	ND
	Methylene Chloride	ND		2-Chloroethylvinyl Ether	ND
	Trichlorofluoromethane	ND		Bromoform	ND
	1,1-Dichloroethene	ND		1,1,2,2-Tetrachloroethane #	ND
	1,1-Dichloroethane	ND		Tetrachloroethylene #	ND
	trans-1,2-Dichloroethene	ND		Chlorobenzene	ND
	Chloroform	ND		1,3-Dichlorobenzene	ND
	1,2-Dichloroethane	ND		1,2-Dichlorobenzene	ND
	1,1,1-Trichloroethane	ND		1,4-Dichlorobenzene	ND
	Carbon Tetrachloride	ND			
	Bromodichloromethane	ND			
	1,2-Dichloropropane	ND			
	trans-1,3-Dichloropropene	ND			

SAMPLE ID 85-0920 QA FRACTION Q4A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 02/06/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT

SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

CORPORATION

PAGE 21 Analytical Serv REPORT LAB # 85-02-036
RECEIVED: 02/07/85 Results by Sample

SAMPLE ID 85-0920 GA FRACTION BN TEST CODE GC 602 NAME EPA Method 602/GC
Date & Time Collected 02/06/85 Category

DATA FILE D DATE INJECTED 02/15/85 ANALYST MCL VERIFIED BY JSG
CONC FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT
SCAN = scan number or retention time of chromatogram
All results reported in ug/L unless otherwise specified
ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79)

SAMPLE ID 85-0920 QA FRACTION Q4F TEST CODE H1RCRA NAME RCRA Herbicides
Date & Time Collected 02/06/85 Category

DATE EXTRACTED 02/15/85 DATE INJECTED 02/26/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER HERBICIDES	RESULT	DET. LIMIT
2,4-D	ND	.05			
2,4,5-TP (Silvex)	ND	.01			
2,4,5-T	ND	.002			

NOTES AND DEFINITIONS FOR THIS REPORT.
ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

SAMPLE ID 85-0920 QA FRACTION Q4F TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 02/06/85 Category

DATE EXTRACTED 02/12/85 DATE INJECTED 02/20/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER PESTICIDES	RESULT	DET. LIMIT
Lindane	ND	0.1			
Endrin	ND	0.1			
Methoxychlor	ND	1.0			
Toxaphene	ND	1.0			
Chlordane	ND	1.0			

NOTES AND DEFINITIONS FOR THIS REPORT

SAMPLE ID 85-0920 GA FRACTION 04F TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 02/06/85 Category

ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

CORPORATION

PAGE 24 Analytical Serv REPORT LAB # 85-02-036
RECEIVED: 02/07/85 Results by Sample

SAMPLE ID 85-0921 FRACTION 05G TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 02/06/85 Category

DATE ANALYZED 02/18/85 VERIFIED BY DLH

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	< 002	AS	Arsenic	< 060
BA	Barium	0.25	HG	Mercury	0.0005
CD	Cadmium	< 002	PB	Lead	< 080
CR	Chromium	< 005	SE	Selenium	< 080

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/ml unless otherwise specified
NA = not analyzed
< = less that 5 times the detection limit
All elements determined by ICPES except Hg.

CORPORATION

PAGE 25 Analytical Serv REPORT LAB # 85-02-036
RECEIVED: 02/07/85 Results by Sample

SAMPLE ID 85-0921 FRACTION 05A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 02/06/85 Category

DATA FILE B DATE INJECTED 02/11/85 ANALYST CAL VERIFIED BY JSG
CONC FACTOR INSTRUMENT b COMPOUNDS DETECTED 1

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Chloromethane	ND	1	Trichloroethene	1760
	Bromomethane	ND		Dibromochloromethane *	ND
	Vinyl Chloride	ND		1,1,2-Trichloroethane *	ND
	Chloroethane	ND		cis-1,3-Dichloropropene *	ND
	Methylene Chloride	ND		2-Chloroethylvinyl Ether	ND
	Trichlorofluoromethane	ND		Bromoform	ND
	1,1-Dichloroethene	ND		1,1,2,2-Tetrachloroethane #	ND
	1,1-Dichloroethane	ND		Tetrachloroethylene #	ND
	trans-1,2-Dichloroethene	ND		Chlorobenzene	ND
	Chloroform	ND		1,3-Dichlorobenzene	ND
	1,2-Dichloroethane	ND		1,2-Dichlorobenzene	ND
	1,1,1-Trichloroethane	ND		1,4-Dichlorobenzene	ND
	Carbon Tetrachloride	ND			
	Bromodichloromethane	ND			
	1,2-Dichloropropane	ND			
	trans-1,3-Dichloropropene	ND			

CORPORATION

PAGE 26 Analytical Serv REPORT LAB # 85-02-036
RECEIVED: 02/07/85 Results by Sample Continued From Above

SAMPLE ID 85-0921 FRACTION 05A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 02/06/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT

SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
+Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

CORPORATION

PAGE 27 Analytical Serv REPORT LAB # 85-02-036
RECEIVED: 02/07/85 Results by Sample

SAMPLE ID 85-0921 FRACTION 05B TEST CODE GC 602 NAME EPA Method 602/GC
Date & Time Collected 02/06/85 Category

DATA FILE D DATE INJECTED 02/15/85 ANALYST MCL VERIFIED BY JSG
CONC FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

ND = not detected at the MDL percent
SCAN = scan number of peak retention time on chromatogram
All values reported in ug/L unless otherwise specified
MDL = as defined at 40 CFR Part 136, Appendix B, (Federal Register, 12/3/79)

CORPORATION

PAGE 28 Analytical Serv REPORT LAB # 85-02-036
RECEIVED: 02/07/85 Results by Sample

SAMPLE ID 85-0921 FRACTION 05F TEST CODE H1RCRA NAME RCRA Herbicides
Date & Time Collected 02/06/85 Category

DATE EXTRACTED 02/15/85 DATE INJECTED 02/24/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER HERBICIDES	RESULT	DET. LIMIT
2,4-D	ND	05			
2,4,5-TP (Silvex)	ND	01			
2,4,5-T	ND	002			

NOTES AND DEFINITIONS FOR THIS REPORT.
ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

SAMPLE ID 85-0921 FRACTION 05F TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 02/06/85 Category

DATE EXTRACTED 02/14/85 DATE INJECTED 02/20/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER PESTICIDES	RESULT	DET. LIMIT
Lindane	ND	0.1			
Endrin	ND	0.1			
Methoxychlor	ND	1.0			
Toxaphene	ND	1.0			
Chlordane	ND	1.0			

NOTES AND DEFINITIONS FOR THIS REPORT

CORPORATION

PAGE 29 Analytical Serv REPORT LAB # 85-02-036
RECEIVED: 02/07/85 Results by Sample Continued From Above

SAMPLE ID 85-0921 FRACTION OSF TEST CODE PIRCRA NAME RCRA Pesticides
Date & Time Collected 02/06/85 Category

ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

CORPORATION

PAGE 30 Analytical Serv REPORT LAB # 85-02-036
RECEIVED: 02/07/85 Results by Sample

SAMPLE ID 85-0921 QA FRACTION 06A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 02/06/85 Category

DATA FILE 3 DATE INJECTED 02/11/85 ANALYST CAL VERIFIED BY JSG
CONC FACTOR INSTRUMENT b COMPOUNDS DETECTED 1

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Chloromethane	ND	1	Trichloroethene	1750
	Bromomethane	ND		Dibromochloromethane *	ND
	Vinyl Chloride	ND		1,1,2-Trichloroethane *	ND
	Chloroethane	ND		cis-1,3-Dichloropropene *	ND
	Methylene Chloride	ND		2-Chloroethylvinyl Ether	ND
	Trichlorofluoromethane	ND		Bromoform	ND
	1,1-Dichloroethene	ND		1,1,2,2-Tetrachloroethane #	ND
	1,1-Dichloroethane	ND		Tetrachloroethylene #	ND
	trans-1,2-Dichloroethene	ND		Chlorobenzene	ND
	Chloroform	ND		1,3-Dichlorobenzene	ND
	1,2-Dichloroethane	ND		1,2-Dichlorobenzene	ND
	1,1,1-Trichloroethane	ND		1,4-Dichlorobenzene	ND
	Carbon Tetrachloride	ND			
	Bromodichloromethane	ND			
	1,2-Dichloropropane	ND			
	trans-1,3-Dichloropropene	ND			

CORPORATION

PAGE 31 Analytical Serv REPORT LAB # 85-02-036
RECEIVED 02/07/85 Results by Sample Continued From Above

SAMPLE ID 85-0921 GA FRACTION 06A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 02/06/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT

SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79)
*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute

CORPORATION

PAGE 32 Analytical Serv REPORT LAB # 85-02-036
RECEIVED 02/07/85 Results by Sample

SAMPLE ID 85-0941 wA FRACTION 06B TEST CODE GC 602 NAME EPA Method 602/GC
Date & Time Collected 02/06/85 Category

DATA FILE D DATE INJECTED 02/15/85 ANALYST NAA VERIFIED BY JSG
DILUTION FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

SEE END OF DEFINITIONS FOR THIS REPORT
SCAN = scan number or retention time on chromatogram
All results reported in ug/l unless otherwise specified
ND = not det. per 40 CFR Part 136 Appendix I Method 602. (Federal Register, 12/3/79).

CORPORATION

PAGE 1 Analytical Serv REPORT LAB # 85-02-043
RECEIVED 02/08/85 03/14/85 10:45:05

REPORT TO Bill Hall
Austin

ATTEN Larry Crance

CLIENT CARSWELL DOE SAMPLES 6
COMPANY Carswell AFB
FACILITY

WORK ID site 12 water
TAKEN 02/ 04/
TRANS Fed Ex
TYPE
P O # 314-114 0744
INVOICE under separate cover

PREPARED Radian Analytical Services
BY 6801 MoPac Blvd
P O Box 9948
Austin, Texas 78766
ATTEN
PHONE (512) 454-4797

CERTIFIED BY

CONTACT CONOVER

NOTE: Second column confirmations performed for EPA 601 (splits 01 to 06) and EPA 602 (splits 03 to 05).

Footnotes and Comments

* Indicates a value less than 5 times the detection limit. Potential error for such low values ranges between 50 and 100%.

@ Indicates that spike recovery for this analysis on the specific matrix was not within acceptable limits indicating an interferent present.

SAMPLE IDENTIFICATION

01 85-0924
02 85-0924 DA
03 85-0925
04 85-0925 DA
05 85-0926
06 85-0926 DA

Analytical Serv TEST CODES and NAMES used on this report

EP MET	RCRA Metals
GC 601	EPA Method 601/GC
GC 602	EPA Method 602/GC
OHG IR	Oil and Grease, Infrared
PHEN A	Total Phenolics
TOC	Total Organic Carbon
TOX 1	TOX Single Analysis

CORPORATION

PAGE 2 Analytical Serv REPORT LAB # 85-02-043
RECEIVED 02/08/85 RESULTS BY TEST

TEST CODE default units	Sample 01 (entered units)	Sample 02 (entered units)	Sample 03 (entered units)	Sample 05 (entered units)
ONG_IR mg/L	41	34	34	69
PHEN_A mg/L	0.013	0.021	0.017	<.005
TOC mg/L	<1	<1	1	5
TOX_1 mg/L	<.01	<.01	0.38	0.03

CORPORATION

PAGE 3 Analytical Serv REPORT LAB # 85-02-043
RECEIVED: 02/08/85 Results by Sample

SAMPLE ID 85-0924 FRACTION 01F TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 02/07/85 Category

DATE ANALYZED 02/10/85 VERIFIED BY DLH

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	< 002	AS	Arsenic	< 060
BA	Barium	0 10	HG	Mercury	< 0002
CD	Cadmium	< 002	PB	Lead	< 080
CR	Chromium	< 005	SE	Selenium	< 080

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in mg/ml unless otherwise specified.
NA = not analyzed
< = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

CORPORATION

PAGE 4 Analytical Serv REPORT LAB # 85-02-043
RECEIVED: 02/08/85 Results by Sample

SAMPLE ID 85-0924 FRACTION 01A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 02/07/85 Category

DATA FILE A DATE INJECTED 02/11/85 ANALYST MCL VERIFIED BY JSG
CONC. FACTOR INSTRUMENT a COMPOUNDS DETECTED 1

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Chloromethane	ND		Trichloroethene	ND
	Bromomethane	ND		Dibromochloromethane *	ND
	Vinyl Chloride	ND		1,1,2-Trichloroethane *	ND
	Chloroethane	ND		cis-1,3-Dichloropropene *	ND
	Methylene Chloride	ND		2-Chloroethylvinyl Ether	ND
	Trichlorofluoromethane	12.6		Bromoform	ND
	1,1-Dichloroethene	ND		1,1,2,2-Tetrachloroethane #	ND
	1,1-Dichloroethane	ND		Tetrachloroethylene #	ND
	trans-1,2-Dichloroethene	ND		Chlorobenzene	ND
	Chloroform	ND		1,3-Dichlorobenzene	ND
	1,2-Dichloroethane	ND		1,2-Dichlorobenzene	ND
	1,1,1-Trichloroethane	ND		1,4-Dichlorobenzene	ND
	Carbon Tetrachloride	ND			
	Bromodichloromethane	ND			
	1,2-Dichloropropane	ND			
	trans-1,3-Dichloropropene	ND			

CORPORATION

PAGE 3 Analytical Serv REPORT LAB # 85-02-043
RECEIVED: 02/08/85 Results by Sample Continued From Above

SAMPLE ID 85-0944 FRACTION 01A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 02/07/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT:

SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
*Dibromochloroethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

CORPORATION

PAGE 6 Analytical Serv REPORT LAB # 85-02-043
RECEIVED: 02/08/85 Results by Sample

SAMPLE ID 85-0924 FRACTION 01B TEST CODE GC 602 NAME EPA Method 602/GC
Date & Time Collected 02/07/85 Category

DATA FILE D DATE INJECTED 02/15/85 ANALYST RAA VERIFIED BY JSG
GPC FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

KEYS AND DEFINITIONS FOR THIS REPORT
SCAN = scan number or retention time on chromatogram
All results reported in ug/L unless otherwise specified
ND = not detected at the reporting limit method 602, (Federal Register, 12/3/79).

CORPORATION

PAGE Analytical Serv REPORT LAB # 85-02-043
RECEIVED 02/08/85 Results by Sample

SAMPLE ID 85-0934 GA FRACTION 02F TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 02/07/85 Category

DATE ANALYZED 02/16/85 VERIFIED BY DLH

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	< 002	AS	Arsenic	< 060
BA	Barium	0 097	HG	Mercury	0 0002
CD	Cadmium	< 002	PB	Lead	< 080
CR	Chromium	< 005	SE	Selenium	< 080

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/ml unless otherwise specified.
NA = not analyzed
< = less that 5 times the detection limit
All elements determined by ICPES except Hg

CORPORATION

PAGE 8 Analytical Serv REPORT LAB # 85-02-043
RECEIVED: 02/08/85 Results by Sample

SAMPLE ID 85-0924 GA FRACTION 02A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 02/07/85 Category

DATA FILE A DATE INJECTED 02/11/85 ANALYST RAA VERIFIED BY JSG
DILUTION FACTOR INSTRUMENT a COMPOUNDS DETECTED 1

SCAN	COMPOUND	RESULT
	Chloromethane	ND
	Bromomethane	ND
	Vinyl Chloride	ND
	Chloroethane	ND
	Methylene Chloride	ND
1	Trichlorofluoromethane	15.7
	1,1-Dichloroethene	ND
	1,1-Dichloroethane	ND
	trans-1,2-Dichloroethene	ND
	Chloroform	ND
	1,2-Dichloroethane	ND
	1,1,1-Trichloroethane	ND
	Carbon Tetrachloride	ND
	Bromodichloromethane	ND
	1,2-Dichloropropane	ND
	trans-1,3-Dichloropropene	ND

SCAN	COMPOUND	RESULT
	Trichloroethene	ND
	Dibromochloromethane *	ND
	1,1,2-Trichloroethane *	ND
	cis-1,3-Dichloropropene *	ND
	2-Chloroethylvinyl Ether	ND
	Bromoform	ND
	1,1,2,2-Tetrachloroethane #	ND
	Tetrachloroethylene #	ND
	Chlorobenzene	ND
	1,3-Dichlorobenzene	ND
	1,2-Dichlorobenzene	ND
	1,4-Dichlorobenzene	ND

CORPORATION

PAGE 9 Analytical Serv REPORT LAB # 85-02-043
RECEIVED: 02/05/85 Results by Sample Continued From Above

SAMPLE ID 85-0924 GA FRACTION 02A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 02/07/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN - scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
*Dibromochloroethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

CORPORATION

BASE 10 Analytical Serv REPORT LAB # 85-02-043
RECEIVED: 02/08/85 Results by Sample

SAMPLE ID 85-0924 QA FRACTION 02B TEST CODE QC 602 NAME EPA Method 602/QC
Date & Time Collected 02/07/85 Category

DATA FILE D DATE INJECTED 02/15/85 ANALYST RAA VERIFIED BY JSG
CONC FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

CODES AND DEFINITIONS FOR THIS REPORT
SCAN = scan number or retention time on chromatogram
All results reported in ug/l unless otherwise specified
ND = not detected at the reporting limit method 602, (Federal Register, 12/3/79).

CORPORATION

PAGE 11 Analytical Serv REPORT LAB # 85-02-043
RECEIVED: 02/08/85 Results by Sample

SAMPLE ID 85-0925 FRACTION 03F TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 02/07/85 Category

DATE ANALYZED 02/16/85 VERIFIED BY DLH

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	< .002	AS	Arsenic	< .060
BA	Barium	0.14	HG	Mercury	0.0003
CD	Cadmium	< .002	PB	Lead	< .080
CR	Chromium	< .005	SE	Selenium	< .080

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/ml unless otherwise specified.
NA = not analyzed
< = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

CORPORATION

PAGE 12 Analytical Serv REPORT LAB # 85-02-043
RECEIVED: 02/08/85 Results by Sample

SAMPLE ID 85-0925 FRACTION 03A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 02/07/85 Category

DATA FILE A DATE INJECTED 02/11/85 ANALYST RAA VERIFIED BY JSG
CONC FACTOR INSTRUMENT a COMPOUNDS DETECTED 2

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Chloromethane	ND	1	Trichloroethene	35B
	Bromomethane	ND		Dibromochloromethane *	ND
	Vinyl Chloride	ND		1,1,2-Trichloroethane *	ND
	Chloroethane	ND		cis-1,3-Dichloropropene *	ND
	Methylene Chloride	ND		2-Chloroethylvinyl Ether	ND
	Trichlorofluoromethane	ND		Bromoform	ND
	1,1-Dichloroethene	ND		1,1,2,2-Tetrachloroethane #	ND
	1,1-Dichloroethane	ND	2	Tetrachloroethylene #	15B
	trans-1,2-Dichloroethene	ND		Chlorobenzene	ND
	Chloroform	ND		1,3-Dichlorobenzene	ND
	1,2-Dichloroethane	ND		1,2-Dichlorobenzene	ND
	1,1,1-Trichloroethane	ND		1,4-Dichlorobenzene	ND
	Carbon Tetrachloride	ND			
	Bromodichloromethane	ND			
	1,2-Dichloropropane	ND			
	trans-1,3-Dichloropropene	ND			

CORPORATION

PAGE 13 Analytical Serv REPORT LAB # 85-02-043
RECEIVED 02/08/85 Results by Sample Continued From Above

SAMPLE ID 85-0925 FRACTION 03A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 02/07/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT

SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79)
*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute

CORPORATION

PAGE 14 Analytical Serv REPORT LAB # 85-02-043
RECEIVED: 02/06/85 Results by Sample

SAMPLE ID 85-0925 FRACTION 03B TEST CODE GC 602 NAME EPA Method 602/GC
Date & Time Collected 02/07/85 Category

DATA FILE D DATE INJECTED 02/15/85 ANALYST RAA VERIFIED BY JSG
DILUTION FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT
SCAN - scan number of retention time on chromatogram
All results reported in ug/l unless otherwise specified
ND - not detected at the detection limit method 602, (Federal Register, 12/3/79).

CORPORATION

PAGE 15 Analytical Serv REPORT LAB # 85-02-043
RECEIVED: 02/08/85 Results by Sample

SAMPLE ID 85-0925 QA FRACTION 04A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 02/07/85 Category

DATA FILE A DATE INJECTED 02/12/85 ANALYST RAA VERIFIED BY JSG
CONC FACTOR INSTRUMENT a COMPOUNDS DETECTED 2

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Chloromethane	ND	1	Trichloroethene	362
	Bromomethane	ND		Dibromochloromethane *	ND
	Vinyl Chloride	ND		1,1,2-Trichloroethane *	ND
	Chloroethane	ND		cis-1,3-Dichloropropene *	ND
	Methylene Chloride	ND		2-Chloroethylvinyl Ether	ND
	Trichlorofluoromethane	ND		Bromoform	ND
	1,1-Dichloroethene	ND		1,1,2,2-Tetrachloroethane #	ND
	1,1-Dichloroethane	ND	2	Tetrachloroethylene #	164
	trans-1,2-Dichloroethene	ND		Chlorobenzene	ND
	Chloroform	ND		1,3-Dichlorobenzene	ND
	1,2-Dichloroethane	ND		1,2-Dichlorobenzene	ND
	1,1,1-Trichloroethane	ND		1,4-Dichlorobenzene	ND
	Carbon Tetrachloride	ND			
	Bromodichloromethane	ND			
	1,2-Dichloropropane	ND			
	trans-1,3-Dichloropropene	ND			

CORPORATION

PAGE 16 Analytical Serv REPORT LAB # 85-02-043
RECEIVED: 02/08/85 Results by Sample Continued From Above

SAMPLE ID 85-0925 QA FRACTION Q4A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 02/07/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

CORPORATION

PAGE 17 Analytical Serv REPORT LAB # 85-02-043
RECEIVED: 02/08/85 Results by Sample

SAMPLE ID 85-0925 qA FRACTION 04B TEST CODE GC 602 NAME EPA Method 602/GC
Date & Time Collected 02/07/85 Category

DATA FILE D DATE INJECTED 02/15/85 ANALYST RAA VERIFIED BY JSG
CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT
SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified
ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79).

CORPORATION

PAGE 18 Analytical Serv REPORT LAB # 85-02-043
RECEIVED: 02/08/85 Results by Sample

SAMPLE ID 85-0926 FRACTION 05F TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 02/07/85 Category

DATE ANALYZED 02/18/85 VERIFIED BY DLH

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	< .002	AS	Arsenic	< .060
BA	Barium	0.18	HG	Mercury	< .0002
CD	Cadmium	< .002	PB	Lead	< .080
CR	Chromium	< .005	SE	Selenium	< .080

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/ml unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg

CORPORATION

PAGE 19 Analytical Serv REPORT LAB # 85-02-043
RECEIVED: 02/08/85 Results by Sample

SAMPLE ID 85-0926 FRACTION 05A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 02/07/85 Category

DATA FILE A DATE INJECTED 02/12/85 ANALYST MCL VERIFIED BY JSG
CONC FACTOR INSTRUMENT a COMPOUNDS DETECTED 5

SCAN	COMPOUND	RESULT
	Chloromethane	ND
	Bromomethane	ND
1	Vinyl Chloride	9.4
	Chloroethane	ND
	Methylene Chloride	ND
2	Trichlorofluoromethane	13.3
	1,1-Dichloroethene	ND
	1,1-Dichloroethane	ND
	trans-1,2-Dichloroethene	ND
	Chloroform	ND
	1,2-Dichloroethane	ND
3	1,1,1-Trichloroethane	2.9
	Carbon Tetrachloride	ND
	Bromodichloromethane	ND
	1,2-Dichloropropane	ND
	trans-1,3-Dichloropropene	ND

SCAN	COMPOUND	RESULT
4	Trichloroethene	4.8
	Dibromochloromethane *	ND
	1,1,2-Trichloroethane *	ND
	cis-1,3-Dichloropropene *	ND
	2-Chloroethylvinyl Ether	ND
	Bromoform	ND
	1,1,2,2-Tetrachloroethane #	ND
5	Tetrachloroethylene #	4.7
	Chlorobenzene	ND
	1,3-Dichlorobenzene	ND
	1,2-Dichlorobenzene	ND
	1,4-Dichlorobenzene	ND

CORPORATION

PAGE 20 Analytical Serv REPORT LAB # 85-02-043
RECEIVED: 02/08/85 Results by Sample Continued From Above

SAMPLE ID 85-092a FRACTION 05A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 02/07/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT

SCAN = scan number or retention time on chromatogram.
All results reported in ug/l unless otherwise specified.
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

CORPORATION

PAGE 21 Analytical Serv REPORT LAB # 85-02-043
RECEIVED: 02/08/85 Results by Sample

SAMPLE ID 85-0926 FRACTION 05B TEST CODE GC 602 NAME EPA Method 602/GC
Date & Time Collected 02/07/85 Category

DATA FILE D DATE INJECTED 02/15/85 ANALYST RAA VERIFIED BY JSG
CONC FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR DATA REPORT
SCAN = Scan number or retention time on chromatogram.
All results reported in ug/l unless otherwise specified
ND = not detected at EPA detection limit method 602. (Federal Register, 12/3/79).

CORPORATION

PAGE 22 Analytical Serv REPORT LAB # 85-02-043
RECEIVED: 02/08/85 Results by Sample

SAMPLE ID 85-0926 QA FRACTION Q6A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 02/07/85 Category

DATA FILE A DATE INJECTED 02/12/85 ANALYST MCL VERIFIED BY JSG
CONC. FACTOR INSTRUMENT a COMPOUNDS DETECTED 5

SCAN	COMPOUND	RESULT
	Chloromethane	ND
	Bromomethane	ND
1	Vinyl Chloride	8.5
	Chloroethane	ND
	Methylene Chloride	ND
2	Trichlorofluoromethane	10.6
	1,1-Dichloroethene	ND
	1,1-Dichloroethane	ND
	trans-1,2-Dichloroethene	ND
	Chloroform	ND
	1,2-Dichloroethane	ND
3	1,1,1-Trichloroethane	3.7
	Carbon Tetrachloride	ND
	Bromodichloromethane	ND
	1,2-Dichloropropane	ND
	trans-1,3-Dichloropropene	ND

SCAN	COMPOUND	RESULT
4	Trichloroethene	4.8
	Dibromochloromethane *	ND
	1,1,2-Trichloroethane *	ND
	cis-1,3-Dichloropropene *	ND
	2-Chloroethylvinyl Ether	ND
	Bromoform	ND
	1,1,2,2-Tetrachloroethane #	ND
5	Tetrachloroethylene #	4.6
	Chlorobenzene	ND
	1,3-Dichlorobenzene	ND
	1,2-Dichlorobenzene	ND
	1,4-Dichlorobenzene	ND

CORPORATION

PAGE 23 Analytical Serv REPORT LAB # 85-02-043
RECEIVED: 02/08/85 Results by Sample Continued From Above

SAMPLE ID 85-0926 QA FRACTION Q6A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 02/07/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

CORPORATION

PAGE 24 Analytical Serv REPORT LAB # 85-02-043
RECEIVED: 02/08/85 Results by Sample

SAMPLE ID 85-0926 QA FRACTION 06B TEST CODE GC 602 NAME EPA Method 602/GC
Date & Time Collected 02/07/85 Category

DATA FILE D DATE INJECTED 02/15/85 ANALYST RAA VERIFIED BY JSG
CONC FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT
SCAN = scan number or retention time on chromatogram
All results reported in ug/L unless otherwise specified
ND = not detected at EPA detection limit method 602 (Federal Register, 12/3/79).

CORPORATION

PAGE 1 Analytical Serv REPORT LAB # 85-02-044
RECEIVED 02/08/85 03/18/85 12:03:19

REPORT [illegible]
TO [illegible]
[illegible]

ATTEN [illegible]

CLIENT [illegible] SAMPLES 9
COMPANY [illegible]
FACILITY

PREPARED Radian Analytical Services
BY 8501 MoPac Blvd.
P O Box 9948
Austin, Texas 78766
ATTEN
PHONE (512) 454-4797

CERTIFIED BY

CONTACT CONOVER

WORK ID sites 10, 11, 15 water
TAKEN QUIC DMG
TRANS Fed Ex
TYPE
P O # [illegible]
INVOICE under separate cover

Footnotes and Comments

* Indicates a value less than 5 times the detection limit Potential error for such low values ranges between 50 and 100%

@ Indicates that spike recovery for this analysis on the specific matrix was not within acceptable limits indicating an interferent present

SAMPLE IDENTIFICATION

01 85-0243
02 85-0244 DA
03 85-0245
04 85-0246 A
05 85-0247

Analytical Serv TEST CODES and NAMES used on this report

EP MET RCRA Metals
EX 509 Extraction only-509B Herb
EX 608 Extraction only - 608
GC 601 EPA Method 601/GC
GC 602 EPA Method 602/GC
HERCRA RCRA Herbicides
ORG IR Oil and Grease, Infrared
PESCRA RCRA Pesticides
PHEN A Total Phenolics
TOC Total Organic Carbon
TOX 1 TOX Single Analysis

CORPORATION

PAGE 3 Analytical Serv REPORT LAB # 85-03-044
RECEIVED 03/08/85 RESULTS BY TEST

TEST CODE (default units)	Sample 01 (entered units)	Sample 02 (entered units)	Sample 03 (entered units)	Sample 04 (entered units)	Sample 05 (entered units)
EX_504 date complete	03/05/85	03/05/85	03/05/85	03/05/85	03/05/85
EX_608 date complete	02/14/85	02/14/85	02/14/85	02/14/85	02/14/85
ONG_IR mg/L	55	45	63	63	
PHEN_A mg/L	< 005		0.039	0.059	
TOC mg/L	7		7	8	3
TOX_1 mg/L	< 01	0.14	< 01	< 01	

CORPORATION

PAGE 1 Analytical Serv REPORT LAB # 85-02-044
RECEIVED 02/08-87 Results by Sample

SAMPLE ID 85-0923 FRACTION 01G TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 02/07/85 Category

DATE ANALYZED 02/19/85 VERIFIED BY DLH

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	< 002	AS	Arsenic	< 060
BA	Barium	0.18	HG	Mercury	0.0003
CD	Cadmium	< 002	PB	Lead	< 080
CR	Chromium	< 005	SE	Selenium	< 080

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in µg/ml unless otherwise specified
NA = not analyzed
< = less that 5 times the detection limit.
All elements determined by ICPES except Hg

CORPORATION

PAGE 1 — Analytical Serv — REPORT — LAB # 85-02-044

RECEIVED 02/08 07 — Results by Sample

SAMPLE ID 07-0501 — FRACTION 01A — TEST CODE GC 601 — NAME EPA Method 601/GC

Date & Time Collected 02/07/85 — Category

DATA FILE ... G — DATE INJECTED 02/11/85 — ANALYST CAL — VERIFIED BY WSB

CONC FACTOR ... — INSTRUMENT g — COMPOUNDS DETECTED 1

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Chloromethane	ND		Trichloroethene	ND
	Bromomethane	ND		Dibromochloromethane *	ND
	Vinyl Chloride	ND		1,1,2-Trichloroethane *	ND
	Chloroethane	ND		cis-1,3-Dichloropropene *	ND
	Methylene Chloride	ND		2-Chloroethylvinyl Ether	ND
	Trichlorofluoromethane	2.3		Bromoform	ND
	1,1-Dichloroethene	ND		1,1,2,2-Tetrachloroethane #	ND
	1,1-Dichloroethane	ND		Tetrachloroethylene #	ND
	trans-1,2-Dichloroethene	ND		Chlorobenzene	ND
	Chloroform	ND		1,3-Dichlorobenzene	ND
	1,2-Dichloroethane	ND		1,2-Dichlorobenzene	ND
	1,1,1-Trichloroethane	ND		1,4-Dichlorobenzene	ND
	Carbon Tetrachloride	ND			
	Bromodichloromethane	ND			
	1,2-Dichloropropane *	ND			
	trans-1,3-Dichloropropene *	ND			

CORPORATION

PAGE 5 Analytical Serv REPORT LAB # 85-02-044
RECEIVED: 02/09/85 Results by Sample Continued From Above

SAMPLE ID 85-0525 FRACTION 01A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 02/07/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT

SCAN - scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND - not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
#Dibromochloroethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

CORPORATION

PAGE :
RECEIVED 2/08/85

Analytical Serv REPORT
Results by Sample

LAB # 85-02-044

SAMPLE ID 85-0[illegible]

FRACTION 01B TEST CODE GC 602 NAME EPA Method 602/GC
Date & Time Collected 02/07/85 Category

DATA FILE [illegible] D DATE INJECTED 02/18/85 ANALYST MCL VERIFIED BY JCG
CONC FACTOR [illegible] INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

[illegible]

CORPORATION

PAGE Analytical Serv REPORT LAB # 85-02-044
RECEIVED 02/08/85 Results by Sample

SAMPLE ID 85-0921 FRACTION 01C TEST CODE MIRCRA NAME RCRA Herbicides
Date & Time Collected 02/07/85 Category

DATE EXTRACTED 02/09/85 DATE INJECTED 02/09/85 VERIFIED BY MSE
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER HERBICIDES	RESULT	DET. LIMIT
2,4-D	ND	.05			
2,4,5-TP (Silvex)	ND	.01			
2,4,5-T	ND	.002			

NOTES AND DEFINITIONS FOR THIS REPORT
ND = Not detected at the specified detection limit
All results reported in micrograms/liter unless otherwise specified

SAMPLE ID 85-0923 FRACTION 01C TEST CODE PIRCRA NAME RCRA Pesticides
Date & Time Collected 02/07/85 Category

DATE EXTRACTED 02/14/85 DATE INJECTED 02/15/85 VERIFIED BY MSE
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER PESTICIDES	RESULT	DET. LIMIT
Endrin	ND	0.1			
Lindane	ND	0.1			
Methoxychlor	ND	1.0			
Toxaphene	ND	1.0			
Total PCBs	ND	1.0			

NOTES AND DEFINITIONS FOR THIS REPORT

CORPORATION

PAGE 2 Analytical Serv REPORT LAB # 85-02-044
RECEIVED: 02/08/85 Results by Sample Continued From Above

SAMPLE ID 85-0925 FRACTION 01C TEST CODE PIRCRA NAME RCRA Pesticides
Date & Time Collected 02/07/85 Category

ND = Not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified

CORPORATION

PAGE 1 Analytical Serv REPORT LAB # 85-02-044
RECEIVED: 02/08/85 Results by Sample

SAMPLE ID 85-0923 SA FRACTION 02A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 02/07/85 Category

DATA FILE 2 DATE INJECTED 02/11/85 ANALYST RAA VERIFIED BY JSG
GC/GC FACTOR INSTRUMENT q COMPOUNDS DETECTED 1

SCAN	COMPOUND	RESULT
	Chloromethane	ND
	Bromomethane	ND
	Vinyl Chloride	ND
	Chloroethane	ND
	Methylene Chloride	ND
1	Trichlorofluoromethane	2.4
	1,1-Dichloroethene	ND
	1,1-Dichloroethane	ND
	trans-1,2-Dichloroethene	ND
	Chloroform	ND
	1,2-Dichloroethane	ND
	1,1,1-Trichloroethane	ND
	Carbon Tetrachloride	ND
	Bromodichloromethane	ND
	cis-1,3-Dichloropropene	ND
	Dibromochloromethane	ND

SCAN	COMPOUND	RESULT
	Trichloroethene	ND
	Dibromochloromethane *	ND
	1,1,2-Trichloroethane *	ND
	cis-1,3-Dichloropropene *	ND
	2-Chloroethylvinyl Ether	ND
	Bromoform	ND
	1,1,2,2-Tetrachloroethane #	ND
	Tetrachloroethylene #	ND
	Chlorobenzene	ND
	1,3-Dichlorobenzene	ND
	1,2-Dichlorobenzene	ND
	1,4-Dichlorobenzene	ND

CORPORATION

PAGE 10 Analytical Serv REPORT LAB # 85-02-044
RECEIVED 02/08/85 Results by Sample Continued From Above

SAMPLE ID 85-0[illegible] FRACTION 02A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 02/07/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = Scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
*Bromodichloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

CORPORATION

PAGE 11 Analytical Serv REPORT LAB # 85-02-044
RECEIVED: 02/08/85 Results by Sample

SAMPLE ID 85-0[illegible] GS FRACTION 02B TEST CODE GC 602 NAME EPA Method 602/GC
Date & Time Collected 02/07/85 Category

DATA FILE I DATE INJECTED 02/18/85 ANALYST MCL VERIFIED BY JSG
COM. FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

[illegible]
[illegible] Purgeable Base or Neutral Fraction of Extractable Organics
[illegible] [illegible] ug/L unless otherwise specified.
[illegible] [illegible] Test Procedures Establishment Method 602. (Federal Register, 12/3/79).

CORPORATION

PAGE 12 Analytical Serv REPORT LAB # 85-02-044
RECEIVED 02/09/85 Results by Sample

SAMPLE ID [illegible] FRACTION 02C TEST CODE HRCRA NAME RCRA Herbicides
Date & Time Collected 02/07/85 Category

DATE EXTRACTED 02/05/85 DATE INJECTED 02/26/85 VERIFIED BY MSE
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER HERBICIDES	RESULT	DET. LIMIT
2,4-D	ND	.05			
2,4,5-TP (Silvex)	ND	.01			
2,4,5-T	0.2	.002			

NOTES AND DEFINITIONS FOR THIS REPORT.
ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

SAMPLE ID [illegible] FRACTION 02C TEST CODE PRCRA NAME RCRA Pesticides
Date & Time Collected 02/07/85 Category

DATE EXTRACTED 02/15/85 DATE INJECTED 02/23/85 VERIFIED BY MSE
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER PESTICIDES	RESULT	DET. LIMIT
Endrin	ND	0.1			
Lindane	ND	0.1			
Methoxychlor	ND	1.0			
Toxaphene	ND	1.0			
Chlordane	ND	1.0			

NOTES AND DEFINITIONS FOR THIS REPORT

CORPORATION

PAGE 13 Analytical Serv REPORT LAB # 85-02-044
RECEIVED 02/08/85 Results by Sample Continued From Above

SAMPLE ID 85-0[illegible] GW FRACTION 02C TEST CODE PIRCRA NAME RCRA Pesticides
Date & Time Collected 02/07/85 Category

ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

CORPORATION

PAGE 14 Analytical Serv REPORT LAB # 85-02-044
RECEIVED 02/08/85 Results by Sample

SAMPLE ID 85-0920 FRACTION 030 TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 02/07/85 Category

DATE ANALYZED 02/19/85 VERIFIED BY DLH

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	< .002	AS	Arsenic	< .060
BA	Barium	0.088	HG	Mercury	< .0002
CD	Cadmium	< .002	PB	Lead	< .080
CR	Chromium	< .005	SE	Selenium	< .080

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/ml unless otherwise specified
NA = not analyzed
< = less that 5 times the detection limit
All elements determined by ICPES except Hg

CORPORATION

BASE ID — Analytical Serv — REPORT — LAB # 85-02-044
RECEIVED: 02/08/85 — Results by Sample

SAMPLE ID 85-0938 — FRACTION 03A — TEST CODE GC 601 — NAME EPA Method 601/GC
Date & Time Collected 02/07/85 — Category

DATA FILE: [illegible]S — DATE INJECTED 02/11/85 — ANALYST RAA — VERIFIED BY JSG
CONC FACTOR: [illegible] — INSTRUMENT 9 — COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
[illegible]	Chloromethane	ND	[illegible]	Trichloroethene	ND
[illegible]	Bromomethane	ND	[illegible]	Dibromochloromethane *	ND
[illegible]	Vinyl Chloride	ND	[illegible]	1,1,2-Trichloroethane *	ND
[illegible]	Chloroethane	ND	[illegible]	cis-1,3-Dichloropropene *	ND
[illegible]	Methylene Chloride	ND	[illegible]	2-Chloroethylvinyl Ether	ND
[illegible]	Trichlorofluoromethane	ND	[illegible]	Bromoform	ND
[illegible]	1,1-Dichloroethene	ND	[illegible]	1,1,2,2-Tetrachloroethane #	ND
[illegible]	1,1-Dichloroethane	ND	[illegible]	Tetrachloroethylene #	ND
[illegible]	trans-1,2-Dichloroethene	ND	[illegible]	Chlorobenzene	ND
[illegible]	Chloroform	ND	[illegible]	1,3-Dichlorobenzene	ND
[illegible]	1,2-Dichloroethane	ND	[illegible]	1,2-Dichlorobenzene	ND
[illegible]	1,1,1-Trichloroethane	ND	[illegible]	1,4-Dichlorobenzene	ND
[illegible]	Carbon Tetrachloride	ND			
[illegible]	Dichlorobromomethane	ND			
[illegible]	trans-1,3-Dichloropropene	ND			
[illegible]	Dichlorodifluoromethane	ND			

CORPORATION

Page 10 Analytical Serv REPORT LAB # 85-02-044
RECEIVED 02/08/85 Results by Sample Continued From Above

SAMPLE ID 5[illegible]-0920 FRACTION 03A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 02/07/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT

SCAN = scan number or retention time on chromatogram.
All results reported in ug/l unless otherwise specified.
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
*Dichlorodifluoromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute

CORPORATION

PAGE 1 Analytical Serv REPORT LAB # 85-02-044
RECEIVED 02/08/85 Results by Sample

SAMPLE ID [illegible] FRACTION 03B TEST CODE GC 802 NAME EPA Method 802/GC
Date & Time Collected 02/07/85 Category

DATA FILE [illegible] DATE INJECTED 02/19/85 ANALYST MCL VERIFIED BY JSG
DILN FACTOR [illegible] INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

[illegible]
[illegible]
[illegible]
[illegible] (Effective 12/3/79)

CORPORATION

[illegible] Analytical Serv REPORT LAB # 85-02-044
RECEIVED 02/08/85 Results by Sample

SAMPLE ID [illegible] FRACTION 03C TEST CODE HRCRA NAME RCRA Herbicides
Date & Time Collected 02/07/85 Category

DATE EXTRACTED 02/12/85 DATE INJECTED 02/20/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER HERBICIDES	RESULT	DET. LIMIT
[illegible]	ND	.05			
[illegible]	ND	.01			
[illegible]	ND	.002			

NOTES AND DEFINITIONS FOR THIS REPORT
ND = Not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

SAMPLE ID [illegible] FRACTION 03C TEST CODE PRCRA NAME RCRA Pesticides
Date & Time Collected 02/07/85 Category

DATE EXTRACTED [illegible] DATE INJECTED 02/20/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER PESTICIDES	RESULT	DET. LIMIT
[illegible]	ND	.1			
[illegible]	ND	.1			
[illegible]	ND	.1			
[illegible]	ND	.1			
[illegible]	ND	.1			

[illegible] NOTES AND DEFINITIONS FOR THIS REPORT

CORPORATION

PAGE IV Analytical Serv REPORT LAB # 85-02-044
RECEIVED 02/08/85 Results by Sample Continued From Above

SAMPLE ID 85-0925 FRACTION 03C TEST CODE PIRCRA NAME RCRA Pesticides
Date & Time Collected 02/07/85 Category

ND = Not detected at the specified detection limit
All results reported in micrograms/liter unless otherwise specified.

CORPORATION

PAGE 60 Analytical Serv REPORT LAB # 85-02-044
RECEIVED 2/20/85 Results by Sample

SAMPLE ID 85-0520 GP FRACTION 040 TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 02/0/85 Category

DATE ANALYZED 02/19/85 VERIFIED BY DLH

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	< 002	AS	Arsenic	< 060
BA	Barium	0 11	HG	Mercury	0 0005
CD	Cadmium	< 002	PB	Lead	< 080
CR	Chromium	< 005	SE	Selenium	< 080

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/ml unless otherwise specified
NA = not analyzed
< = less that 5 times the detection limit
All elements determined by ICPES except Hg

CORPORATION

PAGE 31 Analytical Ser. REPORT LAB # 85-02-044
RECEIVED: 02/08/85 Results by Sample

SAMPLE ID 85-0[illegible]-W FRACTION 04A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 02/07/85 Category

DATA FI[illegible] DATE INJECTED 02/12/85 ANALYST MCL VERIFIED BY JSG
CONC FACTOR [illegible] INSTRUMENT a COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Chloromethane	ND		Trichloroethene	ND
	Bromomethane	ND		Dibromochloromethane *	ND
	Vinyl Chloride	ND		1,1,2-Trichloroethane *	ND
	Chloroethane	ND		cis-1,3-Dichloropropene *	ND
	Methylene Chloride	ND		2-Chloroethylvinyl Ether	ND
	Trichlorofluoromethane	ND		Bromoform	ND
	1,1-Dichloroethene	ND		1,1,2,2-Tetrachloroethane #	ND
	1,1-Dichloroethane	ND		Tetrachloroethylene #	ND
	trans-1,2-Dichloroethene	ND		Chlorobenzene	ND
	Chloroform	ND		1,3-Dichlorobenzene	ND
	1,2-Dichloroethane	ND		1,2-Dichlorobenzene	ND
	1,1,1-Trichloroethane	ND		1,4-Dichlorobenzene	ND
	Carbon Tetrachloride	ND			
	Bromodichloromethane	ND			
	1,2-Dichloropropane	ND			
	trans-1,3-Dichloropropene	ND			

CORPORATION

PAGE 22 Analytical Serv REPORT LAB # 85-02-044
RECEIVED 02/08/85 Results by Sample Continued From Above

SAMPLE ID 85-02-044-02 FRACTION 04A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 02/07/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT

DLR's - Dilution factor or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND - not detected at EPA detection limit method 601. (Federal Register, 12/3/79)
Bromodichloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute

CORPORATION

Analytical Serv REPORT LAB # 85-02-044

Results by Sample

SAMPLE ID [illegible] FRACTION 04B TEST CODE GC 602 NAME EPA Method 602/GC

Date & Time Collected 02/07/85 Category

[illegible] DATE INJECTED 02/18/85 ANALYST MCL VERIFIED BY JFS

[illegible] INSTRUMENT d COMPOUNDS DETECTED 0

[illegible]	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
[illegible]	Benzene	ND	[illegible]	1,3-Dichlorobenzene	ND
[illegible]	Toluene	ND	[illegible]	1,2-Dichlorobenzene	ND
[illegible]	Ethyl Benzene	ND	[illegible]	1,4-Dichlorobenzene	ND

[illegible]

[illegible] Method 602, Chemical Register, 12/3/79)

CORPORATION

PAGE 14 Analytical Serv REPORT LAB # 85-02-044
RECEIVED 2/08/85 Results by Sample

SAMPLE ID [illegible] FRACTION 04B TEST CODE HRCRA NAME RCRA Herbicides
Date & Time Collected 02/07/85 Category

[illegible] DATE INJECTED 02/09/85 VERIFIED BY MSF
[illegible] ANALYST LML

COMPOUND	RESULT	DET. LIMIT	OTHER HERBICIDES	RESULT	DET. LIMIT
[illegible]	NB	09			
[illegible]	NB	11			
[illegible]	0.3	002			

NOTES AND DEFINITIONS FOR THIS REPORT.
NB = not detected at the specified detection limit.
All results are reported in micrograms/liter unless otherwise specified.

SAMPLE ID [illegible] FRACTION 04C TEST CODE PIRCRA NAME RCRA Pesticides
Date & Time Collected 02/07/85 Category

[illegible] DATE INJECTED 02/13/85 VERIFIED BY MSF
[illegible] ANALYST LML

COMPOUND	RESULT	DET. LIMIT	OTHER PESTICIDES	RESULT	DET. LIMIT
[illegible]	NB	0.1			
[illegible]	NB	0.1			
[illegible]	NB	1.0			
[illegible]	NB	1.0			
[illegible]	NB	[illegible]			

[illegible] for this report

CORPORATION

PAGE 17 Analytical Serv REPORT LAB # 85-02-044
RECEIVED [illegible] Results by Sample Continued From Above

SAMPLE ID [illegible] FRACTION 04C TEST CODE PIRCRA NAME RCRA Pesticides
Date & Time Collected 02/07/85 Category

[illegible] detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

SAMPLE ID [illegible] FRACTION 05A TEST CODE HIRCRA NAME RCRA Herbicides
Date & Time Collected 02/07/85 Category

DATE EXTRACTED 02/09/85 DATE INJECTED 02/08/85 VERIFIED BY MSE
CONCENTRATION FACTOR ANALYST LHC

[illegible]	RESULT	DET LIMIT	OTHER HERBICIDES	RESULT	DET LIMIT
[illegible]	ND	05			
[illegible]	ND	01			
[illegible]	ND	002			

NOTES AND DEFINITIONS FOR THIS REPORT
ND - [illegible] detected at the specified detection limit
All [illegible] reported in micrograms/liter unless otherwise specified.

SAMPLE ID [illegible] FRACTION 05A TEST CODE PIRCRA NAME RCRA Pesticides
Date & Time Collected 02/07/85 Category

[illegible] DATE INJECTED [illegible] VERIFIED BY MSE
[illegible] ANALYST LHC

[illegible]	[illegible]	[illegible]	OTHER PESTICIDES	RESULT	DET LIMIT
[illegible]	[illegible]	[illegible]			
[illegible]	[illegible]	[illegible]			
[illegible]	[illegible]	[illegible]			

CORPORATION

Analytical Serv REPORT LAB # 85-02-044
Results by Sample Continued From Above

SAMPLE ID 85-042 FRACTION 05A TEST CODE PIRCRA NAME RCRA Pesticides
Date & Time Collected 02/07/85 Category

Toxaphene	ND	1.0
Chlordane	ND	1.0

NOTES AND DEFINITIONS FOR THIS REPORT
ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

CORPORATION

PAGE 1 Analytical Serv REPORT LAB # 85-02-053
RECEIVED: 02/11/85 04/10/85 15:48:00

REPORT TO: Radian
B1 4
Austin

ATTEN: Larry French

CLIENT: CARSWELL DO6 SAMPLES: 4
COMPANY: Carswell AFB
FACILITY:

PREPARED BY: Radian Analytical Services
8501 MoPac Blvd.
P.O. Box 9948
Austin, Texas 78766

ATTEN:
PHONE: (512) 454-4797

CERTIFIED BY

CONTACT CONOVER

WORK ID: sites 1 and 15 water
TAKEN: JBC, DHG
TRANS: JBC
TYPE:
P.O. #: 214-114-06-44
INVOICE: under separate cover

Footnotes and Comments

* Indicates a value less than 5 times the detection limit. Potential error for such low values ranges between 50 and 100%.

@ Indicates that spike recovery for this analysis on the specific matrix was not within acceptable limits indicating an interferent present.

SAMPLE IDENTIFICATION

01	85-0930
02	85-0930 QA
03	85-0931
04	85-0931
04	85-0932

Analytical Serv TEST CODES and NAMES used on this report

EP MET	RCRA Metals
EX 509	Extraction only-509B Herb.
EX 608	Extraction only - 608
GC 601	EPA Method 601/GC
GC 602	EPA Method 602/GC
H1RCRA	RCRA Herbicides
ONG IR	Oil and Grease, Infrared
P1RCRA	RCRA Pesticides
PHEN A	Total Phenolics
TOC	Total Organic Carbon
TOX 1	TOX Single Analysis

CORPURATION

PAGE 2 Analytical Serv REPORT LAB # 85-02-053
RECEIVED: 02/11/85
RESULTS BY TEST

TEST CODE default units	Sample 01 (entered units)	Sample 03 (entered units)	Sample 04 (entered units)
EX_509 date complete	03/07/85	03/07/85	03/07/85
EX_608 date complete	02/14/85	02/14/85	02/14/85
ONG_IR mg/L	<1		
PHEN_A mg/L	0.026		
TOC mg/L	3	4	<1
TOX_1 mg/L	<.01		

CORPORATION

PAGE 3 Analytical Serv REPORT LAB # 85-02-053
RECEIVED: 02/11/85 Results by Sample

SAMPLE ID 85-0930 FRACTION 01G TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 02/08/85 Category

DATE ANALYZED 02/18/85 VERIFIED BY DLH

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	< .002	AS	Arsenic	< .060
BA	Barium	0.18	HG	Mercury	0.0004
CD	Cadmium	< .002	PB	Lead	< .080
CR	Chromium	< .005	SE	Selenium	< .080

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/ml unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

CORPORATION

PAGE 4 Analytical Serv REPORT LAB # 85-02-053
RECEIVED: 02/11/85 Results by Sample

SAMPLE ID 85-0930 FRACTION 01A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 02/08/85 Category

DATA FILE A DATE INJECTED 02/12/85 ANALYST RAA VERIFIED BY JSG
CONC. FACTOR INSTRUMENT a COMPOUNDS DETECTED 1

SCAN	COMPOUND	RESULT
	Chloromethane	ND
	Bromomethane	ND
	Vinyl Chloride	ND
	Chloroethane	ND
	Methylene Chloride	ND
	Trichlorofluoromethane	ND
	1,1-Dichloroethene	ND
	1,1-Dichloroethane	ND
1	trans-1,2-Dichloroethene	0.8
	Chloroform	ND
	1,2-Dichloroethane	ND
	1,1,1-Trichloroethane	ND
	Carbon Tetrachloride	ND
	Bromodichloromethane	ND
	1,2-Dichloropropane	ND
	trans-1,3-Dichloropropene	ND

SCAN	COMPOUND	RESULT
	Trichloroethene	ND
	Dibromochloromethane *	ND
	1,1,2-Trichloroethane *	ND
	cis-1,3-Dichloropropene *	ND
	2-Chloroethylvinyl Ether	ND
	Bromoform	ND
	1,1,2,2-Tetrachloroethane #	ND
	Tetrachloroethylene #	ND
	Chlorobenzene	ND
	1,3-Dichlorobenzene	ND
	1,2-Dichlorobenzene	ND
	1,4-Dichlorobenzene	ND

CORPORATION

PAGE 5 Analytical Serv REPORT LAB # 85-02-053
RECEIVED: 02/11/85 Results by Sample Continued From Above

SAMPLE ID 85-0930 FRACTION 01A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 02/08/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

CORPORATION

PAGE 6 Analytical Serv REPORT LAB # 85-02-053
RECEIVED: 02/11/85 Results by Sample

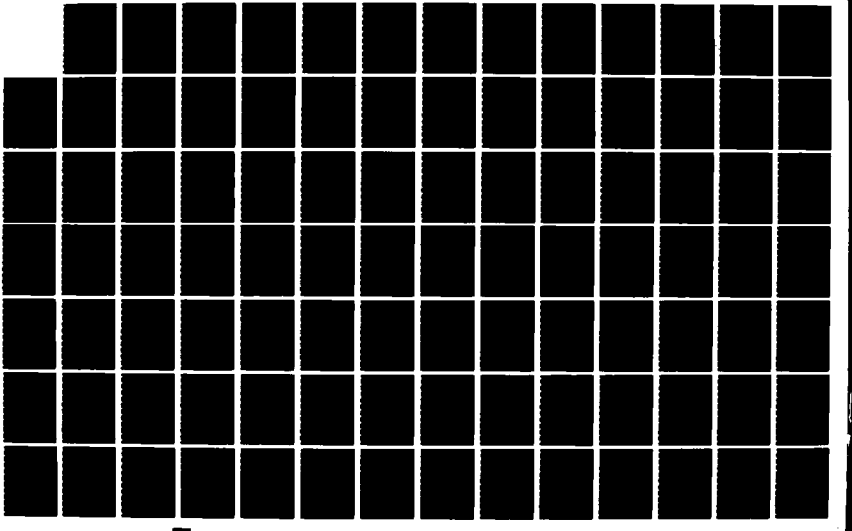
SAMPLE ID 85-0930 FRACTION Q1B TEST CODE GC 602 NAME EPA Method 602/GC
Date & Time Collected 02/08/85 Category

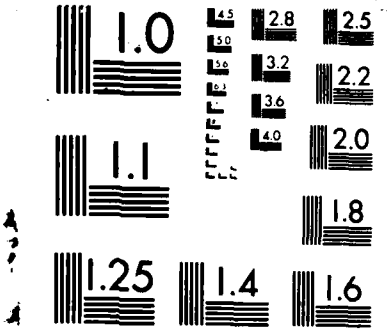
DATA FILE D DATE INJECTED 02/18/85 ANALYST MCL VERIFIED BY JSG
CONC FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT
SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79).

AD-A174 196 INSTALLATION RESTORATION PROGRAM PHASE II 6/9
CONFIRMATION/QUANTIFICATION STAGE 1 VOLUME 2 APPENDIX A
(U) RADIAN CORP AUSTIN TX OCT 86 F33615-84-D-4402
UNCLASSIFIED F/G 13/2 NL





MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

CORPORATION

PAGE 7 Analytical Serv REPORT LAB # 85-02-053
RECEIVED: 02/11/85 Results by Sample

SAMPLE ID 85-0930 FRACTION 01C TEST CODE H1RCRA NAME RCRA Herbicides
Date & Time Collected 02/08/85 Category

DATE EXTRACTED 03/07/85 DATE INJECTED 04/02/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER HERBICIDES	RESULT	DET. LIMIT
2,4-D	ND	5			
2,4,5-TP (Silvex)	ND	5			
2,4,5-T	ND	5			

NOTES AND DEFINITIONS FOR THIS REPORT.
ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

SAMPLE ID 85-0930 FRACTION 01C TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 02/08/85 Category

DATE EXTRACTED 02/14/85 DATE INJECTED 02/23/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER PESTICIDES	RESULT	DET. LIMIT
Lindane	ND	0.1			
Endrin	ND	0.1			
Methoxychlor	ND	1.0			
Toxaphene	ND	1.0			
Chlordane	ND	1.0			

NOTES AND DEFINITIONS FOR THIS REPORT

CORPORATION

PAGE 8 Analytical Serv REPORT LAB # 85-02-053
RECEIVED: 02/11/85 Results by Sample Continued From Above

SAMPLE ID 85-0930 FRACTION 01C TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 02/08/85 Category

ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

CORPORATION

PAGE 9 Analytical Serv REPORT LAB # 85-02-053
RECEIVED: 02/11/85 Results by Sample

SAMPLE ID 85-0930 QA FRACTION 02A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 02/08/85 Category

DATA FILE A DATE INJECTED 02/12/85 ANALYST RAA VERIFIED BY JSG
CONC. FACTOR INSTRUMENT a COMPOUNDS DETECTED 1

SCAN	COMPOUND	RESULT
	Chloromethane	ND
	Bromomethane	ND
	Vinyl Chloride	ND
	Chloroethane	ND
	Methylene Chloride	ND
	Trichlorofluoromethane	ND
	1,1-Dichloroethene	ND
	1,1-Dichloroethane	ND
1	trans-1,2-Dichloroethene	0.8
	Chloroform	ND
	1,2-Dichloroethane	ND
	1,1,1-Trichloroethane	ND
	Carbon Tetrachloride	ND
	Bromodichloromethane	ND
	1,2-Dichloropropane	ND
	trans-1,3-Dichloropropene	ND

SCAN	COMPOUND	RESULT
	Trichloroethene	ND
	Dibromochloromethane *	ND
	1,1,2-Trichloroethane *	ND
	cis-1,3-Dichloropropene *	ND
	2-Chloroethylvinyl Ether	ND
	Bromoform	ND
	1,1,2,2-Tetrachloroethane #	ND
	Tetrachloroethylene #	ND
	Chlorobenzene	ND
	1,3-Dichlorobenzene	ND
	1,2-Dichlorobenzene	ND
	1,4-Dichlorobenzene	ND

CORPORATION

PAGE 10 Analytical Serv REPORT LAB # 85-02-053
RECEIVED: 02/11/85 Results by Sample Continued From Above

SAMPLE ID 85-0930 QA FRACTION 02A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 02/08/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

CORPORATION

PAGE 11 Analytical Serv REPORT LAB # 85-02-053
RECEIVED: 02/11/85 Results by Sample

SAMPLE ID 85-0930 QA FRACTION 02B TEST CODE GC 602 NAME EPA Method 602/GC
Date & Time Collected 02/08/85 Category

DATA FILE D DATE INJECTED 02/18/85 ANALYST MCL VERIFIED BY JSG
CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT.
SCAN = scan number or retention time on chromatogram.
All results reported in ug/l unless otherwise specified.
ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79).

SAMPLE ID 85-0931 FRACTION 03A TEST CODE H1RCRA NAME RCRA Herbicides
Date & Time Collected 02/08/85 Category

DATE EXTRACTED 03/07/85 DATE INJECTED 04/02/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER HERBICIDES	RESULT	DET. LIMIT
2,4-D	ND	5			
2,4,5-TP (Silvex)	ND	5			
2,4,5-T	ND	5			

NOTES AND DEFINITIONS FOR THIS REPORT.
ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

SAMPLE ID 85-0931 FRACTION 03A TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 02/08/85 Category

DATE EXTRACTED 02/14/85 DATE INJECTED 02/23/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER PESTICIDES	RESULT	DET. LIMIT
Lindane	ND	0.1			
Endrin	ND	0.1			
Methoxychlor	ND	1.0			
Toxaphene	ND	1.0			
Chlordane	ND	1.0			

NOTES AND DEFINITIONS FOR THIS REPORT.

SAMPLE ID 85-0931 FRACTION 03A TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 02/08/85 Category

ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

SAMPLE ID 85-0931 FRACTION 04A TEST CODE H1RCRA NAME RCRA Herbicides
Date & Time Collected 02/08/85 Category

DATE EXTRACTED 03/07/85 DATE INJECTED 04/02/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER HERBICIDES	RESULT	DET. LIMIT
2,4-D	ND	5			
2,4,5-TP (Silvex)	ND	5			
2,4,5-T	ND	5			

NOTES AND DEFINITIONS FOR THIS REPORT.
ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

SAMPLE ID 85-0931 FRACTION 04A TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 02/08/85 Category

DATE EXTRACTED 02/14/85 DATE INJECTED 02/23/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER PESTICIDES	RESULT	DET. LIMIT
Lindane	<0.1	0.1			
Endrin	<0.1	0.1			
Methoxychlor	ND	1.0			

CORPORATION

PAGE 14 Analytical Serv REPORT LAB # 85-02-053
RECEIVED: 02/11/85 Results by Sample Continued From Above

SAMPLE ID 85-0931 FRACTION 04A TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 02/08/85 Category

Toxaphene	ND	1.0
Chlordane	ND	1.0

NOTES AND DEFINITIONS FOR THIS REPORT.
ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

CORPORATION

PAGE 1 Analytical Serv REPORT LAB # 85-02-115

RECEIVED: 02/20/85 03/21/85 13:18:57

REPORT TO: Radian
Bl. 4
Austin

ATTEN: Larry French

CLIENT: CARSWELL D06 SAMPLES: 1
COMPANY: Carswell AFB
FACILITY:

PREPARED BY: Radian Analytical Services
8501 MoPac Blvd.
P.O. Box 9948
Austin, Texas 78766

ATTEN:
PHONE: (512) 454-4797

CERTIFIED BY

CONTACT CONOVER

WORK ID: water: WSA
TAKEN: LNF
TRANS: Fed Ex
TYPE:
P.O. #: 214-114-06-
INVOICE: under separate cover

Footnotes and Comments

* Indicates a value less than 5 times the detection limit. Potential error for such low values ranges between 50 and 100%.

@ Indicates that spike recovery for this analysis on the specific matrix was not within acceptable limits indicating an interferent present.

SAMPLE IDENTIFICATION

01 85-0933

Analytical Serv TEST CODES and NAMES used on this report

ALPHA	Gross Alpha Radiation
BETA	Gross Beta Radiation
RA TOT	Total Radium

CORPORATION

PAGE 2 Analytical Serv REPORT LAB # 85-02-115
RECEIVED: 02/20/85 Results by Sample

SAMPLE ID 85-0933 SAMPLE # 01 FRACTIONS: A
Date & Time Collected 02/19/85 Category

ALPHA 3.6 (1.5) pci/L BETA 5.1 (1.8) pCi/L RA TOT 8.5 (.9) pCi/L

Test Methodology

TEST CODE ALPHA NAME Gross Alpha Radiation

The value in parentheses is a + or - 1 sigma value.
Results are thus expressed as: Value (+ or - 1 sigma).
1 sigma = 1 standard deviation, 68% confidence level.

TEST CODE BETA NAME Gross Beta Radiation

The value in parentheses is a + or - 1 sigma value.
Results are thus expressed as: Value (+ or - 1 sigma).
1 sigma = 1 standard deviation, 68% confidence level.

TEST CODE RA TOT NAME Total Radium

RA (TOT) = Ra226 + Ra228.
The value in parentheses is a + or - 1 sigma value.
Results are thus expressed as: Value (+ or - 1 sigma).
1 sigma = 1 standard deviation, 68% confidence level.

CORPORATION

PAGE 1 Analytical Serv REPORT LAB # 85-02-116
RECEIVED: 02/20/85 04/10/85 16:53:12

REPORT TO: Radian
B1 4
Austin

ATTEN: Larry French

CLIENT: CARSWELL DOA SAMPLES: 2
COMPANY: Carswell AFB
FACILITY:

WORK ID: water: 5D, 4F
TAKEN: LNF
TRANS: Fed Ex
TYPE:
P O #: 214-114-06-44
INVOICE: under separate cover

PREPARED BY: Radian Analytical Services
8501 MoPac Blvd.
P.O. Box 9948
Austin, Texas 78766
ATTEN:
PHONE: (512) 454-4797

CERTIFIED BY

CONTACT CONOVER

Note: Second column confirmation performed for EPA 601, splits 01 and 02.

Footnotes and Comments

* Indicates a value less than 5 times the detection limit. Potential error for such low values ranges between 50 and 100%.

@ Indicates that spike recovery for this analysis on the specific matrix was not within acceptable limits indicating an interferent present.

SAMPLE IDENTIFICATION

01 85-0940
02 85-0941

Analytical Serv TEST CODES and NAMES used on this report

COD A	Chemical Oxygen Demand
EX 509	Extraction only-509B Herb
EX 608	Extraction only - 608
GC 601	EPA Method 601/GC
GC 602	EPA Method 602/GC
H1RCRA	RCRA Herbicides
ONG IR	Oil and Grease, Infrared
P1RCRA	RCRA Pesticides
TOC	Total Organic Carbon

CORPORATION

PAGE 2 Analytical Serv REPORT LAB # 85-02-116
RECEIVED: 02/20/85 RESULTS BY TEST

TEST CODE default units	Sample 01 (entered units)	Sample 02 (entered units)
COD_A mg/L	9	<1
EX_509 date complete	03/07/85	03/07/85
EX_608 date complete	02/25/85	02/25/85
ONG_IR mg/L	<1	
TOC mg/L	12	3

CORPORATION

PAGE 3 Analytical Serv REPORT LAB # 85-02-116
RECEIVED: 02/20/85 Results by Sample

SAMPLE ID 85-0940 FRACTION 01A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 02/19/85 Category

DATA FILE A DATE INJECTED 02/25/85 ANALYST MSF VERIFIED BY JSG
CONC FACTOR INSTRUMENT a COMPOUNDS DETECTED 3

SCAN	COMPOUND	RESULT
	Chloromethane	ND
	Bromomethane	ND
1	Vinyl Chloride	38.7
	Chloroethane	ND
	Methylene Chloride	ND
	Trichlorofluoromethane	ND
	1,1-Dichloroethene	ND
	1,1-Dichloroethane	ND
2	trans-1,2-Dichloroethene	56.9
	Chloroform	ND
	1,2-Dichloroethane	ND
	1,1,1-Trichloroethane	ND
	Carbon Tetrachloride	ND
	Bromodichloromethane	ND
	1,2-Dichloropropane	ND
	trans-1,3-Dichloropropene	ND
3	Trichloroethene	4.4
	Dibromochloromethane *	ND
	1,1,2-Trichloroethane *	ND
	cis-1,3-Dichloropropene *	ND
	2-Chloroethylvinyl Ether	ND
	Bromoform	ND
	1,1,2,2-Tetrachloroethane #	ND
	Tetrachloroethylene #	ND
	Chlorobenzene	ND
	1,3-Dichlorobenzene	ND
	1,2-Dichlorobenzene	ND
	1,4-Dichlorobenzene	ND

CORPORATION

PAGE 4 Analytical Serv REPORT LAB # 85-02-116
RECEIVED: 02/20/85 Results by Sample Continued From Above

SAMPLE ID 85-0940 FRACTION 01A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 02/19/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

CORPORATION

PAGE 5 Analytical Serv REPORT LAB # 85-02-116
RECEIVED: 02/20/85 Results by Sample

SAMPLE ID 85-0940 FRACTION 01B TEST CODE GC 602 NAME EPA Method 602/GC
Date & Time Collected 02/19/85 Category

DATA FILE D DATE INJECTED 03/01/85 ANALYST RAA VERIFIED BY JSG
CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT.
SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79).

CORPORATION

PAGE 6 Analytical Serv REPORT LAB # 85-02-116
RECEIVED: 02/20/85 Results by Sample

SAMPLE ID 85-0940 FRACTION Q1D TEST CODE H1RCRA NAME RCRA Herbicides
Date & Time Collected 02/19/85 Category

DATE EXTRACTED 03/07/85 DATE INJECTED 04/09/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER HERBICIDES	RESULT	DET. LIMIT
2,4-D	ND	5			
2,4,5-TP (Silvex)	ND	5			
2,4,5-T	ND	5			

NOTES AND DEFINITIONS FOR THIS REPORT.
ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

SAMPLE ID 85-0940 FRACTION Q1D TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 02/19/85 Category

DATE EXTRACTED 02/25/85 DATE INJECTED 03/06/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER PESTICIDES	RESULT	DET. LIMIT
Lindane	ND	0.1			
Endrin	ND	0.1			
Methoxychlor	ND	1.0			
Toxaphene	ND	1.0			

NOTES AND DEFINITIONS FOR THIS REPORT

CORPORATION

PAGE 7 Analytical Serv REPORT LAB # 85-02-116
RECEIVED: 02/20/85 Results by Sample Continued From Above

SAMPLE ID 85-0940 FRACTION 01D TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 02/19/85 Category

ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

CORPORATION

PAGE 8 Analytical Serv REPORT LAB # 85-02-116
RECEIVED: 02/20/85 Results by Sample

SAMPLE ID 85-0941 FRACTION 02A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 02/19/85 Category

DATA FILE A DATE INJECTED 02/25/85 ANALYST MSF VERIFIED BY JSG
CONC. FACTOR INSTRUMENT a COMPOUNDS DETECTED 2

SCAN	COMPOUND	RESULT
	Chloromethane	ND
	Bromomethane	ND
	Vinyl Chloride	ND
	Chloroethane	ND
	Methylene Chloride	ND
	Trichlorofluoromethane	ND
	1,1-Dichloroethene	ND
	1,1-Dichloroethane	ND
	trans-1,2-Dichloroethene	ND
	Chloroform	ND
	1,2-Dichloroethane	ND
1	1,1,1-Trichloroethane	5.0
	Carbon Tetrachloride	ND
	Bromodichloromethane	ND
	1,2-Dichloropropane	ND
	trans-1,3-Dichloropropene	ND

SCAN	COMPOUND	RESULT
2	Trichloroethene	4.3
	Dibromochloromethane *	ND
	1,1,2-Trichloroethane *	ND
	cis-1,3-Dichloropropene *	ND
	2-Chloroethylvinyl Ether	ND
	Bromoform	ND
	1,1,2,2-Tetrachloroethane #	ND
	Tetrachloroethylene #	ND
	Chlorobenzene	ND
	1,3-Dichlorobenzene	ND
	1,2-Dichlorobenzene	ND
	1,4-Dichlorobenzene	ND

CORPORATION

PAGE 9 Analytical Serv REPORT LAB # 85-02-116
RECEIVED: 02/20/85 Results by Sample Continued From Above

SAMPLE ID 85-0941 FRACTION 02A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 02/19/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

CORPORATION

PAGE 10 Analytical Serv REPORT LAB # 85-02-116
RECEIVED: 02/20/85 Results by Sample

SAMPLE ID 85-0941 FRACTION 02B TEST CODE GC 602 NAME EPA Method 602/GC
Date & Time Collected 02/19/85 Category

DATA FILE D DATE INJECTED 03/01/85 ANALYST RAA VERIFIED BY JSG
CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT
SCAN = scan number or retention time on chromatogram
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79).

CORPORATION

PAGE 11 Analytical Serv REPORT LAB # 85-02-116
RECEIVED: 02/20/85 Results by Sample

SAMPLE ID 85-0941 FRACTION 02D TEST CODE H1RCRA NAME RCRA Herbicides
Date & Time Collected 02/19/85 Category

DATE EXTRACTED 03/07/85 DATE INJECTED 04/09/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER HERBICIDES	RESULT	DET. LIMIT
2,4-D	ND	5			
2,4,5-TP (Silvex)	ND	5			
2,4,5-T	ND	5			

NOTES AND DEFINITIONS FOR THIS REPORT.
ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

SAMPLE ID 85-0941 FRACTION 02D TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 02/19/85 Category

DATE EXTRACTED 02/25/85 DATE INJECTED 03/06/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER PESTICIDES	RESULT	DET. LIMIT
Lindane	ND	0.1			
Endrin	ND	0.1			
Methoxychlor	ND	1.0			
Toxaphene	ND	1.0			

NOTES AND DEFINITIONS FOR THIS REPORT.

CORPORATION

PAGE 12 Analytical Serv REPORT LAB # 85-02-116
RECEIVED: 02/20/85 Results by Sample Continued From Above

SAMPLE ID 85-0941 FRACTION 02D TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 02/19/85 Category

ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

CORPORATION

PAGE 1 Analytical Serv REPORT LAB # 85-02-160

RECEIVED: 02/22/85 04/26/85 14:45:56

REPORT TO: Bl. 4, Austin

ATTEN: Larry French

CLIENT: CARSWELL D06 SAMPLES: 8

COMPANY: Carswell AFB

FACILITY:

WORK ID: soil, WSA and 16

TAKEN: LF

TRANS: LF

TYPE:

P.O. #: 214-114-06-42

INVOICE: under separate cover

PREPARED BY: Radian Analytical Services, 8501 MoPac Blvd., P.O. Box 9948, Austin, Texas 78766

ATTEN:

PHONE: (512) 454-4797

CERTIFIED BY

CONTACT: CONOVER

Note: Detection limits for SW8010 and SW8020 were 10 ug/Kg and 150 ug/Kg, respectively.

Footnotes and Comments

* Indicates a value less than 5 times the detection limit. Potential error for such low values ranges between 50 and 100%.

@ Indicates that spike recovery for this analysis on the specific matrix was not within acceptable limits indicating an interferent present.

SAMPLE IDENTIFICATION

01	85-0934
02	85-0935
03	85-0936
04	85-0937
05	85-0938
06	85-0939
07	85-0942
08	85-0943

Analytical Serv TEST CODES and NAMES used on this report

EP MET	RCRA Metals
ONG IR	Oil and Grease, Infrared
PREP W	Special Digestion Method
PREP X	Special Digestion Method
SW8010	GC-HECD Halog. Vol. - SW846
SW8020	GC-PID Arom. Vol. - SW846

CORPORATION

PAGE 2 Analytical Serv REPORT LAB # 85-02-160

RECEIVED: 02/22/85 RESULTS BY TEST

TEST CODE default units	Sample 01 (entered units)	Sample 02 (entered units)	Sample 03 (entered units)	Sample 04 (entered units)	Sample 05 (entered units)
ONG_IR mg/L	<10 ug/g	<10 ug/g	<10 ug/g	<10 ug/g	14 ug/g
PREP_W date complete	03/01/85	03/01/85	03/01/85	03/01/85	03/01/85

TEST CODE default units	Sample 06 (entered units)	Sample 07 (entered units)	Sample 08 (entered units)
ONG_IR mg/L	<10 ug/g	<10 ug/g	27 ug/g
PREP_W date complete	03/01/85	03/01/85	03/01/85
PREP_X date complete		03/01/85	03/01/85

CORPORATION

PAGE 3 Analytical Serv REPORT LAB # 85-02-160
RECEIVED: 02/22/85 Results by Sample

SAMPLE ID 85-0934 FRACTION 01B TEST CODE SW8010 NAME GC-HECD Halog. Vol. - SW846
Date & Time Collected 02/19/85 Category

DATA FILE A DATE INJECTED 02/25/85 ANALYST RAA VERIFIED BY JSG
CONC. FACTOR INSTRUMENT a COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Chloromethane	ND		Trichloroethene	ND
	Bromomethane	ND		Dibromochloromethane	ND
	Vinyl Chloride	ND		1,1,2-Trichloroethane	ND
	Chloroethane	ND		cis-1,3-Dichloropropene	ND
	Methylene Chloride	ND		2-Chloroethylvinyl Ether	ND
	Trichlorofluoromethane	ND		Bromoform	ND
	1,1-Dichloroethene	ND		1,1,2,2-Tetrachloroethane	ND
	1,1-Dichloroethane	ND		Tetrachloroethylene	ND
	trans-1,2-Dich roethene	ND		Chlorobenzene	ND
	Chloroform	ND		1,3-Dichlorobenzene	ND
	1,2-Dichloroethane	ND		1,2-Dichlorobenzene	ND
	1,1,1-Trichloroethane	ND		1,4-Dichlorobenzene	ND
	Carbon Tetrachloride	ND			
	Bromodichloromethane	ND			
	1,2-Dichloropropane	ND			
	trans-1,3-Dichloropropene	ND			

CORPORATION

PAGE 4 Analytical Serv REPORT LAB # 85-02-160
RECEIVED: 02/22/85 Results by Sample Continued From Above

SAMPLE ID 85-0934 FRACTION Q1B TEST CODE SW8010 NAME GC-HECD Haloq. Vol. - SW846
Date & Time Collected 02/19/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

All results reported in ug/Kg unless otherwise specified.

ND = not detected at detection limit of 1 ug/kg, unless otherwise specified.

CORPORATION

PAGE 5 Analytical Serv REPORT LAB # 85-02-160
RECEIVED: 02/22/85 Results by Sample

SAMPLE ID 85-0934 FRACTION 01B TEST CODE SW8020 NAME GC-PID Arom. Vol. - SW846
Date & Time Collected 02/19/85 Category

DATA FILE D DATE INJECTED 03/07/85 ANALYST MCL VERIFIED BY JSG
CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT.
SCAN = scan number or retention time on chromatogram.
All results reported in ug/Kg unless otherwise specified.
ND = not detected at detection limit of 1 ug/kg, unless otherwise specified.

CORPORATION

PAGE 6 Analytical Serv REPORT LAB # 85-02-160
RECEIVED: 02/22/85 Results by Sample

SAMPLE ID 85-0935 FRACTION 02B TEST CODE SW8010 NAME GC-HECD Haloq. Vol. - SW846
Date & Time Collected 02/19/85 Category

DATA FILE A DATE INJECTED 02/25/85 ANALYST RAA VERIFIED BY JSG
CONC. FACTOR INSTRUMENT a COMPOUNDS DETECTED 1

SCAN	COMPOUND	RESULT
	Chloromethane	ND
	Bromomethane	ND
	Vinyl Chloride	ND
	Chloroethane	ND
	Methylene Chloride	ND
	Trichlorofluoromethane	ND
	1,1-Dichloroethene	ND
	1,1-Dichloroethane	ND
	trans-1,2-Dichloroethene	ND
	Chloroform	ND
	1,2-Dichloroethane	ND
	1,1,1-Trichloroethane	ND
	Carbon Tetrachloride	ND
	Bromodichloromethane	ND
	1,2-Dichloropropane	ND
	trans-1,3-Dichloropropene	ND

SCAN	COMPOUND	RESULT
1	Trichloroethene	61.9
	Dibromochloromethane	ND
	1,1,2-Trichloroethane	ND
	cis-1,3-Dichloropropene	ND
	2-Chloroethylvinyl Ether	ND
	Bromoform	ND
	1,1,2,2-Tetrachloroethane	ND
	Tetrachloroethylene	ND
	Chlorobenzene	ND
	1,3-Dichlorobenzene	ND
	1,2-Dichlorobenzene	ND
	1,4-Dichlorobenzene	ND

CORPORATION

PAGE 7 Analytical Serv REPORT LAB # 85-02-160
RECEIVED: 02/22/85 Results by Sample Continued From Above

SAMPLE ID 85-0935 FRACTION 02B TEST CODE SW8010 NAME GC-HECD Haloq. Vol. - SW846
Date & Time Collected 02/19/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

All results reported in ug/Kg unless otherwise specified.

ND = not detected at detection limit of 1 ug/kg, unless otherwise specified.

CORPORATION

PAGE 8 Analytical Serv REPORT LAB # 85-02-160
RECEIVED: 02/22/85 Results by Sample

SAMPLE ID 85-0935 FRACTION 02B TEST CODE SW8020 NAME GC-PID Arom. Vol. - SW846
Date & Time Collected 02/19/85 Category

DATA FILE D DATE INJECTED 03/07/85 ANALYST MCL VERIFIED BY JSG
CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT.
SCAN = scan number or retention time on chromatogram.
All results reported in ug/Kg unless otherwise specified.
ND = not detected at detection limit of 1 ug/kg, unless otherwise specified.

CORPORATION

PAGE 9 Analytical Serv REPORT LAB # 85-02-160
RECEIVED: 02/22/85 Results by Sample

SAMPLE ID 85-0936 FRACTION 03B TEST CODE SW8010 NAME GC-HECD Haloq. Vol. - SW846
Date & Time Collected 02/19/85 Category

DATA FILE B DATE INJECTED 02/26/85 ANALYST RAA VERIFIED BY JSG
CONC. FACTOR INSTRUMENT b COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Chloromethane	ND		Trichloroethene	ND
	Bromomethane	ND		Dibromochloromethane	ND
	Vinyl Chloride	ND		1,1,2-Trichloroethane	ND
	Chloroethane	ND		cis-1,3-Dichloropropene	ND
	Methylene Chloride	ND		2-Chloroethylvinyl Ether	ND
	Trichlorofluoromethane	ND		Bromoform	ND
	1,1-Dichloroethene	ND		1,1,2,2-Tetrachloroethane	ND
	1,1-Dichloroethane	ND		Tetrachloroethylene	ND
	trans-1,2-Dichloroethene	ND		Chlorobenzene	ND
	Chloroform	ND		1,3-Dichlorobenzene	ND
	1,2-Dichloroethane	ND		1,2-Dichlorobenzene	ND
	1,1,1-Trichloroethane	ND		1,4-Dichlorobenzene	ND
	Carbon Tetrachloride	ND			
	Bromodichloromethane	ND			
	1,2-Dichloropropane	ND			
	trans-1,3-Dichloropropene	ND			

CORPORATION

PAGE 10 Analytical Serv REPORT LAB # 85-02-160
RECEIVED: 02/22/85 Results by Sample Continued From Above

SAMPLE ID 85-0936 FRACTION 03B TEST CODE SW8010 NAME GC-HECD Haloq. Vol. - SW846
Date & Time Collected 02/19/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

All results reported in ug/Kg unless otherwise specified.

ND = not detected at detection limit of 1 ug/kg, unless otherwise specified.

CORPORATION

PAGE 11 Analytical Serv REPORT LAB # 85-02-160
RECEIVED: 02/22/85 Results by Sample

SAMPLE ID 85-0936 FRACTION 03B TEST CODE SW8020 NAME GC-PID Arom. Vol. - SW846
Date & Time Collected 02/19/85 Category

DATA FILE D DATE INJECTED 03/07/85 ANALYST MCL VERIFIED BY JSG
CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT.
SCAN = scan number or retention time on chromatogram.
All results reported in ug/Kg unless otherwise specified.
ND = not detected at detection limit of 1 ug/kg, unless otherwise specified.

CORPORATION

PAGE 12 Analytical Serv REPORT LAB # 85-02-160
RECEIVED: 02/22/85 Results by Sample

SAMPLE ID 85-0937 FRACTION 04B TEST CODE SW8010 NAME GC-HECD Halog. Vol.- SW846
Date & Time Collected 02/19/85 Category

DATA FILE B DATE INJECTED 02/26/85 ANALYST RAA VERIFIED BY JSG
CONC. FACTOR INSTRUMENT b COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Chloromethane	ND		Trichloroethene	ND
	Bromomethane	ND		Dibromochloromethane	ND
	Vinyl Chloride	ND		1,1,2-Trichloroethane	ND
	Chloroethane	ND		cis-1,3-Dichloropropene	ND
	Methylene Chloride	ND		2-Chloroethylvinyl Ether	ND
	Trichlorofluoromethane	ND		Bromoform	ND
	1,1-Dichloroethene	ND		1,1,2,2-Tetrachloroethane	ND
	1,1-Dichloroethane	ND		Tetrachloroethylene	ND
	trans-1,2-Dichloroethene	ND		Chlorobenzene	ND
	Chloroform	ND		1,3-Dichlorobenzene	ND
	1,2-Dichloroethane	ND		1,2-Dichlorobenzene	ND
	1,1,1-Trichloroethane	ND		1,4-Dichlorobenzene	ND
	Carbon Tetrachloride	ND			
	Bromodichloromethane	ND			
	1,2-Dichloropropane	ND			
	trans-1,3-Dichloropropene	ND			

CORPORATION

PAGE 13 Analytical Serv REPORT LAB # 85-02-160
RECEIVED: 02/22/85 Results by Sample Continued From Above

SAMPLE ID 85-0937 FRACTION 04B TEST CODE SW8010 NAME GC-HECD Haloq. Vol. - SW846
Date & Time Collected 02/19/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

All results reported in ug/Kg unless otherwise specified.

ND = not detected at detection limit of 1 ug/kg, unless otherwise specified.

CORPORATION

PAGE 14 Analytical Serv REPORT LAB # 85-02-160
RECEIVED: 02/22/85 Results by Sample

SAMPLE ID 85-0937 FRACTION 04B TEST CODE SW8020 NAME GC-PID Arom. Vol. - SW846
Date & Time Collected 02/19/85 Category

DATA FILE D DATE INJECTED 03/07/85 ANALYST MCL VERIFIED BY JSG
CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT.
SCAN = scan number or retention time on chromatogram.
All results reported in ug/Kg unless otherwise specified.
ND = not detected at detection limit of 1 ug/kg, unless otherwise specified.

CORPORATION

PAGE 15 Analytical Serv REPORT LAB # 85-02-160
RECEIVED: 02/22/85 Results by Sample

SAMPLE ID 85-0938 FRACTION Q5B TEST CODE SW8010 NAME GC-HECD Haloq. Vol.- SW846
Date & Time Collected 02/19/85 Category

DATA FILE B DATE INJECTED 02/26/85 ANALYST RAA VERIFIED BY JSG
CONC. FACTOR INSTRUMENT b COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Chloromethane	ND		Trichloroethene	ND
	Bromomethane	ND		Dibromochloromethane	ND
	Vinyl Chloride	ND		1,1,2-Trichloroethane	ND
	Chloroethane	ND		cis-1,3-Dichloropropene	ND
	Methylene Chloride	ND		2-Chloroethylvinyl Ether	ND
	Trichlorofluoromethane	ND		Bromoform	ND
	1,1-Dichloroethene	ND		1,1,2,2-Tetrachloroethane	ND
	1,1-Dichloroethane	ND		Tetrachloroethylene	ND
	trans-1,2-Dichloroethene	ND		Chlorobenzene	ND
	Chloroform	ND		1,3-Dichlorobenzene	ND
	1,2-Dichloroethane	ND		1,2-Dichlorobenzene	ND
	1,1,1-Trichloroethane	ND		1,4-Dichlorobenzene	ND
	Carbon Tetrachloride	ND			
	Bromodichloromethane	ND			
	1,2-Dichloropropane	ND			
	trans-1,3-Dichloropropene	ND			

CORPORATION

PAGE 16 Analytical Serv REPORT LAB # 85-02-160
RECEIVED: 02/22/85 Results by Sample Continued From Above

SAMPLE ID 85-0938 FRACTION 05B TEST CODE SW8010 NAME GC-HECD Haloq. Vol. - SW846
Date & Time Collected 02/19/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

All results reported in ug/Kg unless otherwise specified.

ND = not detected at detection limit of 1 ug/kg, unless otherwise specified.

CORPORATION

PAGE 17 Analytical Serv REPORT LAB # 85-02-160
RECEIVED: 02/22/85 Results by Sample

SAMPLE ID 85-0938 FRACTION 05B TEST CODE SW8020 NAME GC-PID Arom. Vol. - SW846
Date & Time Collected 02/19/85 Category

DATA FILE D DATE INJECTED 03/07/85 ANALYST MCL VERIFIED BY JSG
CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT.
SCAN = scan number or retention time on chromatogram.
All results reported in ug/Kg unless otherwise specified.
ND = not detected at detection limit of 1 ug/kg, unless otherwise specified.

CORPORATION

PAGE 18 Analytical Serv REPORT LAB # 85-02-160
RECEIVED: 02/22/85 Results by Sample

SAMPLE ID 85-0939 FRACTION 06B TEST CODE SW8010 NAME GC-HECD Haloq. Vol. - SW846
Date & Time Collected 02/19/85 Category

DATA FILE B DATE INJECTED 02/26/85 ANALYST RAA VERIFIED BY JSG
CONC. FACTOR INSTRUMENT b COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT
	Chloromethane	ND
	Bromomethane	ND
	Vinyl Chloride	ND
	Chloroethane	ND
	Methylene Chloride	ND
	Trichlorofluoromethane	ND
	1,1-Dichloroethene	ND
	1,1-Dichloroethane	ND
	trans-1,2-Dichloroethene	ND
	Chloroform	ND
	1,2-Dichloroethane	ND
	1,1,1-Trichloroethane	ND
	Carbon Tetrachloride	ND
	Bromodichloromethane	ND
	1,2-Dichloropropane	ND
	trans-1,3-Dichloropropene	ND

SCAN	COMPOUND	RESULT
	Trichloroethene	ND
	Dibromochloromethane	ND
	1,1,2-Trichloroethane	ND
	cis-1,3-Dichloropropene	ND
	2-Chloroethylvinyl Ether	ND
	Bromoform	ND
	1,1,2,2-Tetrachloroethane	ND
	Tetrachloroethylene	ND
	Chlorobenzene	ND
	1,3-Dichlorobenzene	ND
	1,2-Dichlorobenzene	ND
	1,4-Dichlorobenzene	ND

CORPORATION

PAGE 19 Analytical Serv REPORT LAB # 85-02-160
RECEIVED: 02/22/85 Results by Sample Continued From Above

SAMPLE ID 85-0939 FRACTION 06B TEST CODE SW8010 NAME GC-HECD Haloq. Vol. - SW846
Date & Time Collected 02/19/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

All results reported in ug/Kg unless otherwise specified.

ND = not detected at detection limit of 1 ug/kg, unless otherwise specified.

CORPORATION

PAGE 20 Analytical Serv REPORT LAB # 85-02-160
RECEIVED: 02/22/85 Results by Sample

SAMPLE ID 85-0939 FRACTION 06B TEST CODE SW8020 NAME GC-PID Arom. Vol. - SW846
Date & Time Collected 02/19/85 Category

DATA FILE D DATE INJECTED 03/07/85 ANALYST MCL VERIFIED BY JSG
CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT.
SCAN = scan number or retention time on chromatogram.
All results reported in ug/Kg unless otherwise specified.
ND = not detected at detection limit of 1 ug/kg, unless otherwise specified.

CORPORATION

PAGE 21 Analytical Serv REPORT LAB # 85-02-160
RECEIVED: 02/22/85 Results by Sample

SAMPLE ID 85-0942 FRACTION 07A TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 02/21/85 Category

DATE ANALYZED 04/24/85 VERIFIED BY GMC

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	0.56*	AS	Arsenic	<5.8
BA	Barium	45	HG	Mercury	0.09
CD	Cadmium	<.19	PB	Lead	3.6
CR	Chromium	4.6	SE	Selenium	9.5*

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/g unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

CORPORATION

PAGE 22 Analytical Serv REPORT LAB # 85-02-160
RECEIVED: 02/22/85 Results by Sample

SAMPLE ID 85-0942 FRACTION 07B TEST CODE SW8010 NAME GC-HECD Haloq. Vol. - SW846
Date & Time Collected 02/21/85 Category

DATA FILE B DATE INJECTED 02/25/85 ANALYST RAA VERIFIED BY JSG
CONC. FACTOR INSTRUMENT b COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Chloromethane	ND		Trichloroethene	ND
	Bromomethane	ND		Dibromochloromethane	ND
	Vinyl Chloride	ND		1,1,2-Trichloroethane	ND
	Chloroethane	ND		cis-1,3-Dichloropropene	ND
	Methylene Chloride	ND		2-Chloroethylvinyl Ether	ND
	Trichlorofluoromethane	ND		Bromoform	ND
	1,1-Dichloroethene	ND		1,1,2,2-Tetrachloroethane	ND
	1,1-Dichloroethane	ND		Tetrachloroethylene	ND
	trans-1,2-Dichloroethene	ND		Chlorobenzene	ND
	Chloroform	ND		1,3-Dichlorobenzene	ND
	1,2-Dichloroethane	ND		1,2-Dichlorobenzene	ND
	1,1,1-Trichloroethane	ND		1,4-Dichlorobenzene	ND
	Carbon Tetrachloride	ND			
	Bromodichloromethane	ND			
	1,2-Dichloropropane	ND			
	trans-1,3-Dichloropropene	ND			

CORPORATION

PAGE 23 Analytical Serv REPORT LAB # 85-02-160
RECEIVED: 02/22/85 Results by Sample Continued From Above

SAMPLE ID 85-0942 FRACTION 07B TEST CODE SW8010 NAME GC-HECD Haloq. Vol. - SW846
Date & Time Collected 02/21/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

All results reported in ug/Kg unless otherwise specified.

ND = not detected at detection limit of 1 ug/kg, unless otherwise specified.

CORPORATION

PAGE 24 Analytical Serv REPORT LAB # 85-02-160
RECEIVED: 02/22/85 Results by Sample

SAMPLE ID 85-0942 FRACTION 07B TEST CODE SW8020 NAME GC-PID Arom. Vol. - SW846
Date & Time Collected 02/21/85 Category

DATA FILE D DATE INJECTED 03/07/85 ANALYST MCL VERIFIED BY JSG
CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT.
SCAN = scan number or retention time on chromatogram.
All results reported in ug/Kg unless otherwise specified.
ND = not detected at detection limit of 1 ug/kg, unless otherwise specified.

CORPORATION

PAGE 25 Analytical Serv REPORT LAB # 85-02-160
RECEIVED: 02/22/85 Results by Sample

SAMPLE ID 85-0943 FRACTION 08A TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 02/21/85 Category

DATE ANALYZED 04/24/85 VERIFIED BY GMC

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	0.82*	AS	Arsenic	<6.1
BA	Barium	57	HG	Mercury	0.05
CD	Cadmium	<.2	PB	Lead	8.4
CR	Chromium	5.1	SE	Selenium	9.1*

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/g unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

CORPORATION

PAGE 26 Analytical Serv REPORT LAB # 85-02-160
RECEIVED: 02/22/85 Results by Sample

SAMPLE ID 85-0943 FRACTION 08B TEST CODE SW8010 NAME GC-HECD Haloq. Vol. - SW846
Date & Time Collected 02/21/85 Category

DATA FILE B DATE INJECTED 02/25/85 ANALYST RAA VERIFIED BY JSG
CONC. FACTOR INSTRUMENT b COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Chloromethane	ND		Trichloroethene	ND
	Bromomethane	ND		Dibromochloromethane	ND
	Vinyl Chloride	ND		1,1,2-Trichloroethane	ND
	Chloroethane	ND		cis-1,3-Dichloropropene	ND
	Methylene Chloride	ND		2-Chloroethylvinyl Ether	ND
	Trichlorofluoromethane	ND		Bromoform	ND
	1,1-Dichloroethene	ND		1,1,2,2-Tetrachloroethane	ND
	1,1-Dichloroethane	ND		Tetrachloroethylene	ND
	trans-1,2-Dichloroethene	ND		Chlorobenzene	ND
	Chloroform	ND		1,3-Dichlorobenzene	ND
	1,2-Dichloroethane	ND		1,2-Dichlorobenzene	ND
	1,1,1-Trichloroethane	ND		1,4-Dichlorobenzene	ND
	Carbon Tetrachloride	ND			
	Bromodichloromethane	ND			
	1,2-Dichloropropane	ND			
	trans-1,3-Dichloropropene	ND			

CORPORATION

PAGE 27 Analytical Serv REPORT LAB # 85-02-160
RECEIVED: 02/22/85 Results by Sample Continued From Above

SAMPLE ID 85-0943 FRACTION 08B TEST CODE SW8010 NAME GC-HECD Haloq. Vol. - SW846
Date & Time Collected 02/21/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

All results reported in ug/Kg unless otherwise specified.

ND = not detected at detection limit of 1 ug/kg, unless otherwise specified.

CORPORATION

PAGE 28 Analytical Serv REPORT LAB # 85-02-160
RECEIVED: 02/22/85 Results by Sample

SAMPLE ID 85-0943 FRACTION 08B TEST CODE SW8020 NAME GC-PID Arom. Vol. - SW846
Date & Time Collected 02/21/85 Category

DATA FILE D DATE INJECTED 03/07/85 ANALYST MCL VERIFIED BY JSG
CONC FACTOR INSTRUMENT d COMPOUNDS DETECTED 1

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
1	Toluene	540		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT.
SCAN = scan number or retention time on chromatogram.
All results reported in ug/Kg unless otherwise specified.
ND = not detected at detection limit of 1 ug/kg, unless otherwise specified.

CORPORATION

PAGE 1 Analytical Serv REPORT LAB # 85-03-006
RECEIVED: 03/01/85 04/26/85 11:42:34

REPORT TO: Radian
Bl. 4
Austin

ATTEN: Larry French

CLIENT: CARSWELL DO6 SAMPLES: 3
COMPANY: Carswell AFB
FACILITY:

WORK ID: water, sites 12 and 16
TAKEN: LNF
TRANS: Fed Ex
TYPE:
P.O. #: 214-114-06-44
INVOICE: under separate cover

PREPARED BY: Radian Analytical Services
8501 MoPac Blvd.
P.O. Box 9948
Austin, Texas 78766

ATTEN:
PHONE: (512) 454-4797

CERTIFIED BY

CONTACT CONOVER

Note: Second column confirmation performed for EPA 602, splits -02 and -03.

Footnotes and Comments

* Indicates a value less than 5 times the detection limit. Potential error for such low values ranges between 50 and 100%.

@ Indicates that spike recovery for this analysis on the specific matrix was not within acceptable limits indicating an interferent present.

SAMPLE IDENTIFICATION

01	850944
02	850945
03	850946

Analytical Serv TEST CODES and NAMES used on this report

EP MET	RCRA Metals
GC 601	EPA Method 601/GC
GC 602	EPA Method 602/GC
ONG IR	Oil and Grease, Infrared
TOC	Total Organic Carbon
TOX 1	TOX Single Analysis

CORPORATION

PAGE 2 Analytical Serv REPORT LAB # 85-03-006
RECEIVED: 03/01/85 RESULTS BY TEST

TEST CODE default units	Sample 01 (entered units)	Sample 02 (entered units)	Sample 03 (entered units)
ONG_IR mg/L	1	<1	1
TOC mg/L	86	4	4
TOX_1 mg/L	<.01	0.04	0.01

CORPORATION

PAGE 3 Analytical Serv REPORT LAB # 85-03-006
RECEIVED: 03/01/85 Results by Sample

SAMPLE ID 850944 FRACTION 01F TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 02/28/85 Category

DATE ANALYZED 04/24/85 VERIFIED BY GMC

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	<.002	AS	Arsenic	<.060
BA	Barium	0.15	HG	Mercury	0.0006*
CD	Cadmium	<.002	PB	Lead	<.080
CR	Chromium	<.005	SE	Selenium	<.080

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/ml unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

CORPORATION

PAGE 4 Analytical Serv REPORT LAB # 85-03-006
RECEIVED: 03/01/85 Results by Sample

SAMPLE ID 850944 FRACTION 01A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 02/28/85 Category

DATA FILE B DATE INJECTED 03/01/85 ANALYST RAA VERIFIED BY JSG
CONC. FACTOR INSTRUMENT b COMPOUNDS DETECTED 1

SCAN	COMPOUND	RESULT
	Chloromethane	ND
	Bromomethane	ND
	Vinyl Chloride	ND
	Chloroethane	ND
	Methylene Chloride	ND
1	Trichlorofluoromethane	3.5
	1,1-Dichloroethene	ND
	1,1-Dichloroethane	ND
	trans-1,2-Dichloroethene	ND
	Chloroform	ND
	1,2-Dichloroethane	ND
	1,1,1-Trichloroethane	ND
	Carbon Tetrachloride	ND
	Bromodichloromethane	ND
	1,2-Dichloropropane	ND
	trans-1,3-Dichloropropene	ND

SCAN	COMPOUND	RESULT
	Trichloroethene	ND
	Dibromochloromethane *	ND
	1,1,2-Trichloroethane *	ND
	cis-1,3-Dichloropropene *	ND
	2-Chloroethylvinyl Ether	ND
	Bromoform	ND
	1,1,2,2-Tetrachloroethane #	ND
	Tetrachloroethylene #	ND
	Chlorobenzene	ND
	1,3-Dichlorobenzene	ND
	1,2-Dichlorobenzene	ND
	1,4-Dichlorobenzene	ND

CORPORATION

PAGE 5 Analytical Serv REPORT LAB # 85-03-006
RECEIVED: 03/01/85 Results by Sample Continued From Above

SAMPLE ID 850944 FRACTION 01A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 02/28/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

CORPORATION

PAGE 6 Analytical Serv REPORT LAB # 85-03-006
RECEIVED: 03/01/85 Results by Sample

SAMPLE ID 850944 FRACTION 01B TEST CODE GC 602 NAME EPA Method 602/GC
Date & Time Collected 02/28/85 Category

DATA FILE D DATE INJECTED 03/01/85 ANALYST RAA VERIFIED BY JSG
CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT.
SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79).

CORPORATION

PAGE 7 Analytical Serv REPORT LAB # 85-03-006
RECEIVED: 03/01/85 Results by Sample

SAMPLE ID 850945 FRACTION 02F TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 02/28/85 Category

DATE ANALYZED 04/24/85 VERIFIED BY GMC

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	<.002	AS	Arsenic	<.060
BA	Barium	0.25	HG	Mercury	0.0004*
CD	Cadmium	<.002	PB	Lead	<.080
CR	Chromium	<.005	SE	Selenium	<.080

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/ml unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

CORPORATION

PAGE 8 Analytical Serv REPORT LAB # 85-03-006
RECEIVED: 03/01/85 Results by Sample

SAMPLE ID 850945 FRACTION 02A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 02/28/85 Category

DATA FILE B DATE INJECTED 03/04/85 ANALYST RAA VERIFIED BY JSG
CONC. FACTOR INSTRUMENT b COMPOUNDS DETECTED 2

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Chloromethane	ND		Trichloroethene	ND
	Bromomethane	ND		Dibromochloromethane *	ND
	Vinyl Chloride	ND		1,1,2-Trichloroethane *	ND
	Chloroethane	ND		cis-1,3-Dichloropropene *	ND
	Methylene Chloride	ND		2-Chloroethylvinyl Ether	ND
1	Trichlorofluoromethane	3.3		Bromoform	ND
	1,1-Dichloroethene	ND		1,1,2,2-Tetrachloroethane #	ND
	1,1-Dichloroethane	ND	2	Tetrachloroethylene #	3.4
	trans-1,2-Dichloroethene	ND		Chlorobenzene	ND
	Chloroform	ND		1,3-Dichlorobenzene	ND
	1,2-Dichloroethane	ND		1,2-Dichlorobenzene	ND
	1,1,1-Trichloroethane	ND		1,4-Dichlorobenzene	ND
	Carbon Tetrachloride	ND			
	Bromodichloromethane	ND			
	1,2-Dichloropropane	ND			
	trans-1,3-Dichloropropene	ND			

CORPORATION

PAGE 9 Analytical Serv REPORT LAB # 85-03-006
RECEIVED: 03/01/85 Results by Sample Continued From Above

SAMPLE ID 850945 FRACTION 02A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 02/28/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

CORPORATION

PAGE 10 Analytical Serv REPORT LAB # 85-03-006
RECEIVED: 03/01/85 Results by Sample

SAMPLE ID 850945 FRACTION 02B TEST CODE GC 602 NAME EPA Method 602/GC
Date & Time Collected 02/28/85 Category

DATA FILE D DATE INJECTED 03/01/85 ANALYST RAA VERIFIED BY JSG
CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT.
SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79).

CORPORATION

PAGE 11 Analytical Serv REPORT LAB # 85-03-006
RECEIVED: 03/01/85 Results by Sample

SAMPLE ID 850946 FRACTION 03F TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 02/28/85 Category

DATE ANALYZED 04/24/85 VERIFIED BY GMC

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	<.002	AS	Arsenic	<.060
BA	Barium	0.28	HG	Mercury	0.0004*
CD	Cadmium	<.002	PB	Lead	<.080
CR	Chromium	<.005	SE	Selenium	<.080

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/ml unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

CORPORATION

PAGE 12 Analytical Serv REPORT LAB # 85-03-006
RECEIVED: 03/01/85 Results by Sample

SAMPLE ID 850946 FRACTION 03A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 02/28/85 Category

DATA FILE B DATE INJECTED 03/04/85 ANALYST RAA VERIFIED BY JSG
CONC. FACTOR INSTRUMENT b COMPOUNDS DETECTED 1

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Chloromethane	ND		Trichloroethene	ND
	Bromomethane	ND		Dibromochloromethane *	ND
	Vinyl Chloride	ND		1,1,2-Trichloroethane *	ND
	Chloroethane	ND		cis-1,3-Dichloropropene *	ND
	Methylene Chloride	ND		2-Chloroethylvinyl Ether	ND
1	Trichlorofluoromethane	2.9		Bromoform	ND
	1,1-Dichloroethene	ND		1,1,2,2-Tetrachloroethane #	ND
	1,1-Dichloroethane	ND		Tetrachloroethylene #	ND
	trans-1,2-Dichloroethene	ND		Chlorobenzene	ND
	Chloroform	ND		1,3-Dichlorobenzene	ND
	1,2-Dichloroethane	ND		1,2-Dichlorobenzene	ND
	1,1,1-Trichloroethane	ND		1,4-Dichlorobenzene	ND
	Carbon Tetrachloride	ND			
	Bromodichloromethane	ND			
	1,2-Dichloropropane	ND			
	trans-1,3-Dichloropropene	ND			

CORPORATION

PAGE 13 Analytical Serv REPORT LAB # 85-03-006
RECEIVED: 03/01/85 Results by Sample Continued From Above

SAMPLE ID 850946 FRACTION 03A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 02/28/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

CORPORATION

PAGE 14 Analytical Serv REPORT LAB # 85-03-006
RECEIVED: 03/01/85 Results by Sample

SAMPLE ID 850946 FRACTION 03B TEST CODE GC 602 NAME EPA Method 602/GC
Date & Time Collected 02/28/85 Category

DATA FILE D DATE INJECTED 03/04/85 ANALYST MCL VERIFIED BY JSG
CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT.
SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79).

CORPORATION

PAGE 1 Analytical Serv REPORT LAB # 85-03-007

RECEIVED: 03/01/85 04/10/85 10:42:08

REPORT TO: Radian
Bl. 4
Austin

ATTEN: Larry French

CLIENT: CARSWELL. DOE SAMPLES: 5
COMPANY: Carswell AFB
FACILITY:

WORK ID: soil, sites 13 and 16
TAKEN: LNF
TRANS: Fed Ex
TYPE:
P.O. #: 214-114-06-42
INVOICE: under separate cover

PREPARED BY: Radian Analytical Services
8501 MoPac Blvd.
P.O. Box 9948
Austin, Texas 78766

ATTEN:
PHONE: (512) 454-4797

CERTIFIED BY

CONTACT CONOVER

Note: Detection limits for SW8010 and SW8020 were 10 ug/Kg and 150 ug/Kg, respectively.

Footnotes and Comments

* Indicates a value less than 5 times the detection limit. Potential error for such low values ranges between 50 and 100%.

@ Indicates that spike recovery for this analysis on the specific matrix was not within acceptable limits indicating an interferent present.

SAMPLE IDENTIFICATION

01	850921
02	850947
03	850948
04	850949
05	850950

Analytical Serv TEST CODES and NAMES used on this report

EP EXT	RCRA Extraction Procedure
EP MET	RCRA Metals
ONG IR	Oil and Grease, Infrared
PREP W	Special Digestion Method
PREP X	Special Digestion Method
SW8010	GC-HECD Halog. Vol. - SW846
SW8020	GC-PID Arom. Vol. - SW846

CORPORATION

PAGE 2 Analytical Serv REPORT LAB # 85-03-007
RECEIVED: 03/01/85
RESULTS BY TEST

TEST CODE default units	Sample 01 (entered units)	Sample 02 (entered units)	Sample 03 (entered units)	Sample 04 (entered units)	Sample 05 (entered units)
EP_EXT date completed	03/15/85				
ONG_IR mg/L	69	61	240	44	56
PREP_W date complete	03/08/85	03/08/85	03/08/85	03/08/85	03/08/85
PREP_X date complete		04/01/85	04/01/85	04/01/85	04/01/85

CORPORATION

PAGE 3 Analytical Serv REPORT LAB # 85-03-007
RECEIVED: 03/01/85 Results by Sample

SAMPLE ID 850921 FRACTION Q1C TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 02/21/85 Category

DATE ANALYZED 04/03/85 VERIFIED BY GMC

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	0.027	AS	Arsenic	0.19
BA	Barium	0.37	HG	Mercury	0.13
CD	Cadmium	0.007	PB	Lead	0.12
CR	Chromium	0.022	SE	Selenium	0.18

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/ml unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

CORPORATION

PAGE 4 Analytical Serv REPORT LAB # 85-03-007
RECEIVED: 03/01/85 Results by Sample

SAMPLE ID 850947 FRACTION 02A TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 02/28/85 Category

DATE ANALYZED 04/03/85 VERIFIED BY GMC

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	1.2*	AS	Arsenic	9.3*
BA	Barium	85	HG	Mercury	0.10
CD	Cadmium	0.89*	PB	Lead	20*
CR	Chromium	13	SE	Selenium	41*

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/g unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

CORPORATION

PAGE 5 Analytical Serv REPORT LAB # 85-03-007
RECEIVED: 03/01/85 Results by Sample

SAMPLE ID 850947 FRACTION 02B TEST CODE SW8010 NAME GC-HECD Haloq. Vol. - SW846
Date & Time Collected 02/28/85 Category

DATA FILE B DATE INJECTED 03/04/85 ANALYST RAA VERIFIED BY JSG
CONC. FACTOR INSTRUMENT b COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Chloromethane	ND		Trichloroethene	ND
	Bromomethane	ND		Dibromochloromethane	ND
	Vinyl Chloride	ND		1,1,2-Trichloroethane	ND
	Chloroethane	ND		cis-1,3-Dichloropropene	ND
	Methylene Chloride	ND		2-Chloroethylvinyl Ether	ND
	Trichlorofluoromethane	ND		Bromoform	ND
	1,1-Dichloroethene	ND		1,1,2,2-Tetrachloroethane	ND
	1,1-Dichloroethane	ND		Tetrachloroethylene	ND
	trans-1,2-Dichloroethene	ND		Chlorobenzene	ND
	Chloroform	ND		1,3-Dichlorobenzene	ND
	1,2-Dichloroethane	ND		1,2-Dichlorobenzene	ND
	1,1,1-Trichloroethane	ND		1,4-Dichlorobenzene	ND
	Carbon Tetrachloride	ND			
	Bromodichloromethane	ND			
	1,2-Dichloropropane	ND			
	trans-1,3-Dichloropropene	ND			

CORPORATION

PAGE 6 Analytical Serv REPORT LAB # 85-03-007
RECEIVED: 03/01/85 Results by Sample Continued From Above

SAMPLE ID 850947 FRACTION 02B TEST CODE SW8010 NAME GC-HECD Haloq. Vol. - SW846
Date & Time Collected 02/28/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

All results reported in ug/Kg unless otherwise specified.

ND = not detected at detection limit of 1 ug/kg, unless otherwise specified.

CORPORATION

PAGE 7 Analytical Serv REPORT LAB # 85-03-007
RECEIVED: 03/01/85 Results by Sample

SAMPLE ID 850947 FRACTION 02B TEST CODE SW8020 NAME GC-PID Arom. Vol. - SW846
Date & Time Collected 02/28/85 Category

DATA FILE D DATE INJECTED 03/08/85 ANALYST MCL VERIFIED BY JSG
CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT.
SCAN = scan number or retention time on chromatogram.
All results reported in ug/Kg unless otherwise specified.
ND = not detected at detection limit of 1 ug/kg, unless otherwise specified.

CORPORATION

PAGE 8 Analytical Serv REPORT LAB # 85-03-007
RECEIVED: 03/01/85 Results by Sample

SAMPLE ID 850948 FRACTION 03A TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 02/28/85 Category

DATE ANALYZED 04/03/85 VERIFIED BY GMC

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	1.2*	AS	Arsenic	6.1*
BA	Barium	74	HG	Mercury	0.10
CD	Cadmium	0.56*	PB	Lead	13*
CR	Chromium	8.6	SE	Selenium	24*

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/g unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

CORPORATION

PAGE 9 Analytical Serv REPORT LAB # 85-03-007
RECEIVED: 03/01/85 Results by Sample

SAMPLE ID 850948 FRACTION 03B TEST CODE SW8010 NAME GC-HECD Halog. Vol.- SW846
Date & Time Collected 02/28/85 Category

DATA FILE B DATE INJECTED 03/04/85 ANALYST RAA VERIFIED BY JSG
CONC. FACTOR INSTRUMENT b COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Chloromethane	ND		Trichloroethene	ND
	Bromomethane	ND		Dibromochloromethane	ND
	Vinyl Chloride	ND		1,1,2-Trichloroethane	ND
	Chloroethane	ND		cis-1,3-Dichloropropene	ND
	Methylene Chloride	ND		2-Chloroethylvinyl Ether	ND
	Trichlorofluoromethane	ND		Bromoform	ND
	1,1-Dichloroethene	ND		1,1,2,2-Tetrachloroethane	ND
	1,1-Dichloroethane	ND		Tetrachloroethylene	ND
	trans-1,2-Dichloroethene	ND		Chlorobenzene	ND
	Chloroform	ND		1,3-Dichlorobenzene	ND
	1,2-Dichloroethane	ND		1,2-Dichlorobenzene	ND
	1,1,1-Trichloroethane	ND		1,4-Dichlorobenzene	ND
	Carbon Tetrachloride	ND			
	Bromodichloromethane	ND			
	1,2-Dichloropropane	ND			
	trans-1,3-Dichloropropene	ND			

SAMPLE ID 850948 FRACTION 03B TEST CODE SW8010 NAME GC-HECD Haloq. Vol. - SW846
Date & Time Collected 02/28/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

All results reported in ug/Kg unless otherwise specified.

ND = not detected at detection limit of 1 ug/kg, unless otherwise specified.

CORPORATION

PAGE 11 Analytical Serv REPORT LAB # 85-03-007
RECEIVED: 03/01/85 Results by Sample

SAMPLE ID 850948 FRACTION 03B TEST CODE SW8020 NAME GC-PID Arom. Vol. - SW846
Date & Time Collected 02/28/85 Category

DATA FILE D DATE INJECTED 03/08/85 ANALYST MCL VERIFIED BY JSG
CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT.
SCAN = scan number or retention time on chromatogram.
All results reported in ug/Kg unless otherwise specified.
ND = not detected at detection limit of 1 ug/kg, unless otherwise specified.

CORPORATION

PAGE 12 Analytical Serv REPORT LAB # 85-03-007
RECEIVED: 03/01/85 Results by Sample

SAMPLE ID 850949 FRACTION Q4A TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 02/28/85 Category

DATE ANALYZED 04/03/85 VERIFIED BY GMC

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	1.2*	AS	Arsenic	11*
BA	Barium	48	HG	Mercury	0.08*
CD	Cadmium	0.70*	PB	Lead	19*
CR	Chromium	7.1	SE	Selenium	20*

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/g unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

CORPORATION

PAGE 13 Analytical Serv REPORT LAB # 85-03-007
RECEIVED: 03/01/85 Results by Sample

SAMPLE ID 850949 FRACTION 04B TEST CODE SW8010 NAME GC-HECD Halog. Vol.- SW846
Date & Time Collected 02/28/85 Category

DATA FILE B DATE INJECTED 03/05/85 ANALYST MCL VERIFIED BY JSG
CONC. FACTOR INSTRUMENT b COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Chloromethane	ND		Trichloroethene	ND
	Bromomethane	ND		Dibromochloromethane	ND
	Vinyl Chloride	ND		1,1,2-Trichloroethane	ND
	Chloroethane	ND		cis-1,3-Dichloropropene	ND
	Methylene Chloride	ND		2-Chloroethylvinyl Ether	ND
	Trichlorofluoromethane	ND		Bromoform	ND
	1,1-Dichloroethene	ND		1,1,2,2-Tetrachloroethane	ND
	1,1-Dichloroethane	ND		Tetrachloroethylene	ND
	trans-1,2-Dichloroethene	ND		Chlorobenzene	ND
	Chloroform	ND		1,3-Dichlorobenzene	ND
	1,2-Dichloroethane	ND		1,2-Dichlorobenzene	ND
	1,1,1-Trichloroethane	ND		1,4-Dichlorobenzene	ND
	Carbon Tetrachloride	ND			
	Bromodichloromethane	ND			
	1,2-Dichloropropane	ND			
	trans-1,3-Dichloropropene	ND			

CORPORATION

PAGE 14 Analytical Serv REPORT LAB # 85-03-007
RECEIVED: 03/01/85 Results by Sample Continued From Above

SAMPLE ID 850949 FRACTION 04B TEST CODE SW8010 NAME GC-HECD Halog. Vol. - SW846
Date & Time Collected 02/28/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

All results reported in ug/Kg unless otherwise specified.

ND = not detected at detection limit of 1 ug/kg, unless otherwise specified.

CORPORATION

PAGE 15 Analytical Serv REPORT LAB # 85-03-007
RECEIVED: 03/01/85 Results by Sample

SAMPLE ID 850949 FRACTION 04B TEST CODE SW8020 NAME GC-PID Arom. Vol. - SW846
Date & Time Collected 02/28/85 Category

DATA FILE D DATE INJECTED 03/08/85 ANALYST MCL VERIFIED BY JSG
CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT.
SCAN = scan number or retention time on chromatogram.
All results reported in ug/Kg unless otherwise specified.
ND = not detected at detection limit of 1 ug/kg, unless otherwise specified.

CORPORATION

PAGE 16 Analytical Serv REPORT LAB # 85-03-007
RECEIVED: 03/01/85 Results by Sample

SAMPLE ID 850950 FRACTION Q5A TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 02/28/85 Category

DATE ANALYZED 04/03/85 VERIFIED BY GMC

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	0.80*	AS	Arsenic	7.0*
BA	Barium	58	HG	Mercury	0.09*
CD	Cadmium	0.55*	PB	Lead	18*
CR	Chromium	5.5	SE	Selenium	16*

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/g unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

CORPORATION

PAGE 17 Analytical Serv REPORT LAB # 85-03-007
RECEIVED: 03/01/85 Results by Sample

SAMPLE ID 850950 FRACTION 05B TEST CODE SW8010 NAME GC-HECD Halog. Vol.- SW846
Date & Time Collected 02/28/85 Category

DATA FILE B DATE INJECTED 03/05/85 ANALYST MCL VERIFIED BY JSG
CONC. FACTOR INSTRUMENT b COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Chloromethane	ND		Trichloroethene	ND
	Bromomethane	ND		Dibromochloromethane	ND
	Vinyl Chloride	ND		1,1,2-Trichloroethane	ND
	Chloroethane	ND		cis-1,3-Dichloropropene	ND
	Methylene Chloride	ND		2-Chloroethylvinyl Ether	ND
	Trichlorofluoromethane	ND		Bromoform	ND
	1,1-Dichloroethene	ND		1,1,2,2-Tetrachloroethane	ND
	1,1-Dichloroethane	ND		Tetrachloroethylene	ND
	trans-1,2-Dichloroethene	ND		Chlorobenzene	ND
	Chloroform	ND		1,3-Dichlorobenzene	ND
	1,2-Dichloroethane	ND		1,2-Dichlorobenzene	ND
	1,1,1-Trichloroethane	ND		1,4-Dichlorobenzene	ND
	Carbon Tetrachloride	ND			
	Bromodichloromethane	ND			
	1,2-Dichloropropane	ND			
	trans-1,3-Dichloropropene	ND			

SAMPLE ID 850950 FRACTION 05B TEST CODE SW8010 NAME GC-HECD Halog. Vol. - SW846
Date & Time Collected 02/28/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

All results reported in ug/Kg unless otherwise specified.

ND = not detected at detection limit of 1 ug/kg, unless otherwise specified.

CORPORATION

PAGE 19 Analytical Serv REPORT LAB # 85-03-007
RECEIVED: 03/01/85 Results by Sample

SAMPLE ID 850950 FRACTION 05B TEST CODE SW8020 NAME GC-PID Arom. Vol. - SW846
Date & Time Collected 02/28/85 Category

DATA FILE D DATE INJECTED 03/08/85 ANALYST MCL VERIFIED BY JSG
CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT.
SCAN = scan number or retention time on chromatogram.
All results reported in ug/Kg unless otherwise specified.
ND = not detected at detection limit of 1 ug/kg, unless otherwise specified.

RADIAN CORPORATION

PAGE 1 Analytical Serv REPORT LAB # 85-03-049

RECEIVED: 03/05/85 04/15/85 13:46:12

REPORT TO: Radian
81 4
Austin

ATTEN: Larry French

CLIENT: CARSWELL DOS SAMPLES: 6
COMPANY: Carswell AFB
FACILITY:

WORK ID: water site 1
TAKEN: PAW
TRANS: Fed Ex
TYPE:
P O #: 214-114-06-44
INVOICE: under separate cover

PREPARED BY: Radian Analytical Services
8501 MoPac Blvd
P O Box 9948
Austin, Texas 78766
ATTEN:
PHONE: (512) 454-4797

CERTIFIED BY

CONTACT CONOVER

Note: Second column confirmation performed for EPA 601, splits 01 and 02.

Footnotes and Comments

* Indicates a value less than 5 times the detection limit. Potential error for such low values ranges between 50 and 100%.

@ Indicates that spike recovery for this analysis on the specific matrix was not within acceptable limits indicating an interferent present.

SAMPLE IDENTIFICATION

01	850967
02	850968
03	850969
04	850970
05	850971
06	850972

Analytical Serv TEST CODES and NAMES used on this report

EP MET	RCRA Metals
EX 509	Extraction only-509B Herb.
EX 608	Extraction only - 608
GC 601	EPA Method 601/GC
GC 602	EPA Method 602/GC
H1RCRA	RCRA Herbicides
ONG IR	Oil and Grease, Infrared
P1RCRA	RCRA Pesticides
PHEN A	Total Phenolics
TOC	Total Organic Carbon
TOX 1	TOX Single Analysis

Analytical Serv REPORT LAB # 85-03-049

RECEIVED: 03/06/85

RESULTS BY TEST

TEST CODE default units	Sample 01 (entered units)	Sample 02 (entered units)	Sample 03 (entered units)	Sample 04 (entered units)	Sample 05 (entered units)
EX_509 date complete	03/08/85	03/08/85	03/08/85	03/08/85	03/08/85
EX_608 date complete	03/07/85	03/07/85	03/07/85	03/07/85	03/07/85
ONG_IR mg/L	<1	<1	<1	<1	<1
PHEN_A mg/L	<.005		<.005	<.005	0.010
TOC mg/L	7		11	9	11
TOX_1 mg/L	0.03	0.07	0.01	0.01	0.01

Analytical Serv REPORT LAB # 85-03-049

RECEIVED: 03/06/85

Results by Sample

SAMPLE ID 850967 FRACTION 01G TEST CODE EP MET NAME RCRA Metals

Date & Time Collected 03/05/85 Category

DATE ANALYZED 03/14/85 VERIFIED BY GMC

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	<.002	AS	Arsenic	<.060
BA	Barium	0.18	HG	Mercury	0.0003
CD	Cadmium	<.002	PB	Lead	<.080
CR	Chromium	<.005	SE	Selenium	<.080

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/ml unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

[redacted]
CORPORATION

PAGE 4 Analytical Serv REPORT LAB # 85-03-049
RECEIVED: 03/06/85 Results by Sample

SAMPLE ID 850967 FRACTION 01A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 03/05/85 Category

DATA FILE G DATE INJECTED 03/08/85 ANALYST MCL VERIFIED BY JSG
CONC. FACTOR INSTRUMENT q COMPOUNDS DETECTED 1

SCAN	COMPOUND	RESULT
	Chloromethane	ND
	Bromomethane	ND
	Vinyl Chloride	ND
	Chloroethane	ND
	Methylene Chloride	ND
	Trichlorofluoromethane	ND
	1,1-Dichloroethene	ND
	1,1-Dichloroethane	ND
	trans-1,2-Dichloroethene	ND
	Chloroform	ND
	1,2-Dichloroethane	ND
	1,1,1-Trichloroethane	ND
	Carbon Tetrachloride	ND
	Bromodichloromethane	ND
	1,2-Dichloropropane	ND
	trans-1,3-Dichloropropene	ND
1	Trichloroethene	1.3
	Dibromochloromethane *	ND
	1,1,2-Trichloroethane *	ND
	cis-1,3-Dichloropropene *	ND
	2-Chloroethylvinyl Ether	ND
	Bromoform	ND
	1,1,2,2-Tetrachloroethane #	ND
	Tetrachloroethylene #	ND
	Chlorobenzene	ND
	1,3-Dichlorobenzene	ND
	1,2-Dichlorobenzene	ND
	1,4-Dichlorobenzene	ND

SAMPLE ID 85095/ FRACTION 01A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 03/05/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limi method 601, (Federal Register, 12/3/79).
*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

EZ-RUN CORPORATION

PAGE 6 Analytical Serv REPORT LAB # 85-03-049
RECEIVED: 03/06/85 Results by Sample

SAMPLE ID 850967 FRACTION 01B TEST CODE GC 602 NAME EPA Method 602/GC
Date & Time Collected 03/05/85 Category

DATA FILE D DATE INJECTED 03/10/85 ANALYST MCL VERIFIED BY JSG
CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT.
SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 602. (Federal Register, 12/3/79).

Analytical Serv REPORT LAB # 85-03-049

RECEIVED: 03/06/85

Results by Sample

SAMPLE ID 850967 FRACTION 01C TEST CODE H1RCRA NAME RCRA Herbicides

Date & Time Collected 03/05/85 Category

DATE EXTRACTED 03/08/85 DATE INJECTED 04/08/85 VERIFIED BY MSF

CONCENTRATION FACTOR ANALYST MSF

COMPOUND	RESULT	DET. LIMIT	OTHER HERBICIDES	RESULT	DET. LIMIT
2,4-D	ND	5			
2,4,5-TP (Silvex)	ND	5			
2,4,5-T	ND	5			

NOTES AND DEFINITIONS FOR THIS REPORT.

ND = not detected at the specified detection limit.

All results reported in micrograms/liter unless otherwise specified.

SAMPLE ID 850967 FRACTION 01C TEST CODE P1RCRA NAME RCRA Pesticides

Date & Time Collected 03/05/85 Category

DATE EXTRACTED 03/07/85 DATE INJECTED 03/19/85 VERIFIED BY MSF

CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER PESTICIDES	RESULT	DET. LIMIT
Lindane	ND	0.1			
Endrin	ND	0.1			
Methoxychlor	ND	1.0			
Toxaphene	ND	1.0			
Chlordane	ND	1.0			

NOTES AND DEFINITIONS FOR THIS REPORT

SAMPLE ID 850967 FRACTION 01C TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 03/05/85 Category

ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

Analytical Serv REPORT LAB # 85-03-049

RECEIVED: 03/06/85 Results by Sample

SAMPLE ID 850968 FRACTION 02A TEST CODE GC 601 NAME EPA Method 601/GC

Date & Time Collected 03/05/85 Category

DATA FILE G DATE INJECTED 03/08/85 ANALYST MCL VERIFIED BY JSG

CONC. FACTOR INSTRUMENT q COMPOUNDS DETECTED 2

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Chloromethane	ND	2	Trichloroethene	1.4
	Bromomethane	ND		Dibromochloromethane *	ND
	Vinyl Chloride	ND		1,1,2-Trichloroethane *	ND
	Chloroethane	ND		cis-1,3-Dichloropropene *	ND
	Methylene Chloride	ND		2-Chloroethylvinyl Ether	ND
1	Trichlorofluoromethane	3.1		Bromoform	ND
	1,1-Dichloroethene	ND		1,1,2,2-Tetrachloroethane #	ND
	1,1-Dichloroethane	ND		Tetrachloroethylene #	ND
	trans-1,2-Dichloroethene	ND		Chlorobenzene	ND
	Chloroform	ND		1,3-Dichlorobenzene	ND
	1,2-Dichloroethane	ND		1,2-Dichlorobenzene	ND
	1,1,1-Trichloroethane	ND		1,4-Dichlorobenzene	ND
	Carbon Tetrachloride	ND			
	Bromodichloromethane	ND			
	1,2-Dichloropropane	ND			
	trans-1,3-Dichloropropene	ND			

Analytical Serv REPORT

LAB # 85-03-049

RECEIVED: 03/06/85

Results by Sample

Continued From Above

SAMPLE ID 850968 FRACTION 02A TEST CODE GC 601 NAME EPA Method 601/GC

Date & Time Collected 03/05/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN # = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

Analytical Serv REPORT LAB # 85-03-049

RECEIVED: 03/06/85

Results by Sample

SAMPLE ID 850968 FRACTION 02B TEST CODE GC 602 NAME EPA Method 602/GC

Date & Time Collected 03/05/85 Category

DATA File D DATE INJECTED 03/10/85 ANALYST MCL VERIFIED BY JSG

CONC FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT

SCAN = scan number or retention time on chromatogram

All results reported in ug/L unless otherwise specified

ND - not detected at EPA detection limit method 602, (Federal Register, 12/3/79).

Analytical Serv REPORT LAB # 85-03-049

RECEIVED: 03/06/85 Results by Sample

SAMPLE ID 850968 FRACTION 02C TEST CODE H1RCRA NAME RCRA Herbicides

Date & Time Collected 03/05/85 Category

DATE EXTRACTED 03/08/85 DATE INJECTED 04/08/85 VERIFIED BY MSF

CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER HERBICIDES	RESULT	DET. LIMIT
2,4-D	ND	5			
2,4,5-TP (Silvex)	ND	5			
2,4,5-T	ND	5			

NOTES AND DEFINITIONS FOR THIS REPORT.

ND = not detected at the specified detection limit.

All results reported in micrograms/liter unless otherwise specified.

SAMPLE ID 850968 FRACTION 02C TEST CODE P1RCRA NAME RCRA Pesticides

Date & Time Collected 03/05/85 Category

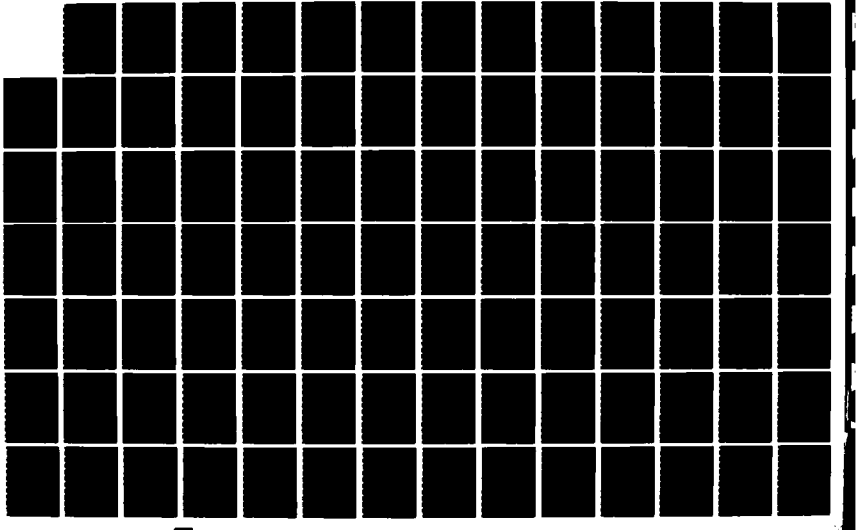
DATE EXTRACTED 03/07/85 DATE INJECTED 03/19/85 VERIFIED BY MSF

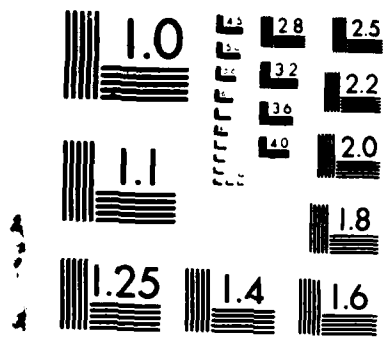
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER PESTICIDES	RESULT	DET. LIMIT
Lindane	ND	0.1			
Endrin	ND	0.1			
[illegible]	ND	1.0			
Toxaphene	ND	1.0			
Chlordane	ND	1.0			

NOTES AND DEFINITIONS FOR THIS REPORT

AD-A174 196 INSTALLATION RESTORATION PROGRAM PHASE II 7/9
CONFIRMATION/QUANTIFICATION STAGE 1 VOLUME 2 APPENDIX A
(U) RADIAN CORP AUSTIN TX OCT 86 F33615-84-D-4402
UNCLASSIFIED F/G 13/2 NL





MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

SAMPLE ID 850968 FRACTION 02C TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 03/05/85 Category

ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

KAISER CORPORATION

PAGE 14 Analytical Serv REPORT LAB # 85-03-049
RECEIVED: 03/06/85 Results by Sample

SAMPLE ID H70969 FRACTION 03G TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 03/05/85 Category

DATE ANALYZED 03/14/85 VERIFIED BY GMC

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	< .002	AS	Arsenic	< .060
BA	Barium	0.21	HG	Mercury	< .0002
CD	Cadmium	< .002	PB	Lead	< .080
CR	Chromium	< .005	SE	Selenium	< .080

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/ml unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

RECEIVED: 03/06/85 Results by Sample

SAMPLE ID 850969 FRACTION 03A TEST CODE GC 601 NAME EPA Method 601/GC

Date & Time Collected 03/05/85 Category

DATA FILE G DATE INJECTED 03/08/85 ANALYST MCL VERIFIED BY JSG

CONC FACTOR INSTRUMENT g COMPOUNDS DETECTED 1

SCAN	COMPOUND	RESULT
	Chloromethane	ND
	Bromomethane	ND
	Vinyl Chloride	ND
	Chloroethane	ND
	Methylene Chloride	ND
1	Trichlorofluoromethane	3.4
	1,1-Dichloroethene	ND
	1,1-Dichloroethane	ND
	trans-1,2-Dichloroethene	ND
	Chloroform	ND
	1,2-Dichloroethane	ND
	1,1,1-Trichloroethane	ND
	Carbon Tetrachloride	ND
	Bromodichloromethane	ND
	1,2-Dichloropropane	ND
	trans-1,3 Dichloropropene	ND

SCAN	COMPOUND	RESULT
	Trichloroethene	ND
	Dibromochloromethane *	ND
	1,1,2-Trichloroethane *	ND
	cis-1,3-Dichloropropene *	ND
	2-Chloroethylvinyl Ether	ND
	Bromoform	ND
	1,1,2,2-Tetrachloroethane #	ND
	Tetrachloroethylene #	ND
	Chlorobenzene	ND
	1,3-Dichlorobenzene	ND
	1,2-Dichlorobenzene	ND
	1,4-Dichlorobenzene	ND

SAMPLE ID 850989 FRACTION 03A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 03/05/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

Analytical Serv REPORT LAB # 85-03-049

RECEIVED: 03/05/85

Results by Sample

SAMPLE ID 850969 FRACTION 03B TEST CODE GC 602 NAME EPA Method 602/GC

Date & Time Collected 03/05/85 Category

DATA FILE D DATE INJECTED 03/10/85 ANALYST MCL VERIFIED BY JSG

CONC FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT

SCAN = scan number or retention time on chromatogram.

All results reported in ug/L unless otherwise specified

ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79).

SAMPLE ID 850969 FRACTION 03C TEST CODE H1RCRA NAME RCRA Herbicides
Date & Time Collected 03/05/85 Category

DATE EXTRACTED 03/08/85 DATE INJECTED 04/08/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER HERBICIDES	RESULT	DET. LIMIT
2,4-D	ND	5			
2,4,5-TP (Silvex)	ND	5			
2,4,5-T	ND	5			

NOTES AND DEFINITIONS FOR THIS REPORT.
ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

SAMPLE ID 850969 FRACTION 03C TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 03/05/85 Category

DATE EXTRACTED 03/07/85 DATE INJECTED 03/19/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER PESTICIDES	RESULT	DET. LIMIT
Endrin	ND	0.1			
Methoxychlor	ND	1.0			
Toxaphene	ND	1.0			
Chlordane	ND	1.0			

NOTES AND DEFINITIONS FOR THIS REPORT

SAMPLE ID 850369 FRACTION 03C TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 03/05/85 Category

ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

CORPORATION

PAGE 20 Analytical Serv REPORT LAB # 85-03-049
RECEIVED: 03/06/85 Results by Sample

SAMPLE ID SC0570 FRACTION 04G TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 03/05/85 Category

DATE ANALYZED 03/14/85 VERIFIED BY GMC

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	< .002	AS	Arsenic	< .060
BA	Barium	0.21	HG	Mercury	< .0002
CD	Cadmium	< .002	PB	Lead	< .080
CR	Chromium	< .005	SE	Selenium	< .080

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/ml unless otherwise specified.
NA = not analyzed
< = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

Analytical Serv REPORT LAB # 85-03-049

RECEIVED: 03/05/85 Results by Sample

SAMPLE ID [illegible] FRACTION 04A TEST CODE GC 601 NAME EPA Method 601/GC

Date & Time Collected 03/05/85 Category

DATA FILE G DATE INJECTED 03/08/85 ANALYST MCL VERIFIED BY JSG

CONC FACTOR INSTRUMENT g COMPOUNDS DETECTED 1

SCAN	COMPOUND	RESULT
	Chloromethane	ND
	Bromomethane	ND
	Vinyl Chloride	ND
	Chloroethane	ND
	Methylene Chloride	ND
	Trichlorofluoromethane	3.1
	1,1-Dichloroethene	ND
	1,1-Dichloroethane	ND
	trans-1,2-Dichloroethene	ND
	Chloroform	ND
	1,2-Dichloroethane	ND
	1,1,1-Trichloroethane	ND
	Carbon Tetrachloride	ND
	Bromodichloromethane	ND
	1,2-Dichloropropane	ND
	trans-1,3-Dichloropropene	ND

SCAN	COMPOUND	RESULT
	Trichloroethene	ND
	Dibromochloromethane *	ND
	1,1,2-Trichloroethane *	ND
	cis-1,3-Dichloropropene *	ND
	2-Chloroethylvinyl Ether	ND
	Bromoform	ND
	1,1,2,2-Tetrachloroethane #	ND
	Tetrachloroethylene #	ND
	Chlorobenzene	ND
	1,3-Dichlorobenzene	ND
	1,2-Dichlorobenzene	ND
	1,4-Dichlorobenzene	ND

SAMPLE ID 850970 FRACTION 04A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 03/05/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT

SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
+Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute

[redacted]
CORPORATION

PAGE 1 Analytical Serv REPORT LAB # 85-03-049
RECEIVED 03/05/85 Results by Sample

SAMPLE ID 850470 FRACTION 04B TEST CODE GC 602 NAME EPA Method 602/GC
Date & Time Collected 03/05/85 Category

Data File D DATE INJECTED 03/10/85 ANALYST MCL VERIFIED BY JSG
Dilution Factor INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

[illegible] AND LIMITATIONS FOR THIS REPORT
SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified
ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79).

CORPORATION

PAGE 24 Analytical Serv REPORT LAB # 85-03-049
RECEIVED: 03/06/85 Results by Sample

SAMPLE ID 850970 FRACTION 04C TEST CODE H1RCRA NAME RCRA Herbicides
Date & Time Collected 03/05/85 Category

DATE EXTRACTED 03/08/85 DATE INJECTED 04/08/85 VERIFIED BY MSF
DILUTION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER HERBICIDES	RESULT	DET. LIMIT
2,4-D	ND	5			
2,4,5-TP (Silvex)	ND	5			
2,4,5-T	ND	5			

NOTES AND DEFINITIONS FOR THIS REPORT.
ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

SAMPLE ID 850970 FRACTION 04C TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 03/05/85 Category

DATE EXTRACTED 03/07/85 DATE INJECTED 03/19/85 VERIFIED BY MSF
DILUTION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER PESTICIDES	RESULT	DET. LIMIT
Lindane	ND	0.1			
Endrin	ND	0.1			
Methoxychlor	ND	1.0			
Toxaphene	ND	1.0			
Chlordane	ND	1.0			

NOTES AND DEFINITIONS FOR THIS REPORT

Analytical Serv REPORT LAB # 85-03-049

RECEIVED: 03/06/85 Results by Sample Continued From Above

SAMPLE ID 850970 FRACTION 04C TEST CODE PIRCRA NAME RCRA Pesticides

Date & Time Collected 03/05/85 Category

ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

[redacted]
CORPORATION

[redacted] Analytical Serv REPORT LAB # 85-03-049
RECEIVED: 03/06/85 Results by Sample

SAMPLE ID 850971 FRACTION 05G TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 03/05/85 Category

DATE ANALYZED 03/14/85 VERIFIED BY GMC

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	< .002	AS	Arsenic	< .060
BA	Barium	0.12	HG	Mercury	< .0002
CD	Cadmium	< .002	PB	Lead	< .080
CR	Chromium	< .005	SE	Selenium	< .080

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/ml unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

Analytical Serv REPORT LAB # 85-03-049

RECEIVED: 03/05/85 Results by Sample

SAMPLE ID: 0109/1 FRACTION 05A TEST CODE GC 601 NAME EPA Method 601/GC

Date & Time Collected 03/05/85 Category

DILUTION 0 DATE INJECTED 03/06/85 ANALYST MCL VERIFIED BY JSG

CONC FACTOR INSTRUMENT g COMPOUNDS DETECTED 1

SCAN	COMPOUND	RESULT
	Chloromethane	ND
	Bromomethane	ND
	Vinyl Chloride	ND
	Chloroethane	ND
	Methylene Chloride	ND
1	Trichlorofluoromethane	3.6
	1,1-Dichloroethene	ND
	1,1-Dichloroethane	ND
	trans-1,2-Dichloroethene	ND
	Chloroform	ND
	1,2-Dichloroethane	ND
	1,1,1-Trichloroethane	ND
	Carbon Tetrachloride	ND
	Bromodichloromethane	ND
	1,2-Dichloropropane	ND
	trans-1,3-Dichloropropene	ND

SCAN	COMPOUND	RESULT
	Trichloroethene	ND
	Dibromochloromethane *	ND
	1,1,2-Trichloroethane *	ND
	cis-1,3-Dichloropropene *	ND
	2-Chloroethylvinyl Ether	ND
	Bromoform	ND
	1,1,2,2-Tetrachloroethane #	ND
	Tetrachloroethylene #	ND
	Chlorobenzene	ND
	1,3-Dichlorobenzene	ND
	1,2-Dichlorobenzene	ND
	1,4-Dichlorobenzene	ND

SAMPLE ID [illegible] FRACTION 05A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 03/05/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

SAMPLE ID 850971 FRACTION 05B TEST CODE GC 602 NAME EPA Method 602/GC
Date & Time Collected 03/05/85 Category

DATA FILE D DATE INJECTED 03/10/85 ANALYST MCL VERIFIED BY JSG
CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT
SCAN - Scan number or retention time on chromatogram.
All results reported in ug/l unless otherwise specified
ND - not detected at EPA detection limit method 602, (Federal Register, 12/3/79).

Analytical Serv REPORT LAB # 85-03-049

RECEIVED: 03/06/85 Results by Sample

SAMPLE ID 850971 FRACTION 05C TEST CODE H1RCRA NAME RCRA Herbicides

Date & Time Collected 03/05/85 Category

DATE EXTRACTED 03/08/85 DATE INJECTED 04/08/85 VERIFIED BY MSF

CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER HERBICIDES	RESULT	DET. LIMIT
2,4-D	ND	5			
2,4,5-TP (Silvex)	ND	5			
2,4,5-T	ND	5			

NOTES AND DEFINITIONS FOR THIS REPORT

ND = not detected at the specified detection limit.

All results reported in micrograms/liter unless otherwise specified.

SAMPLE ID 850971 FRACTION 05C TEST CODE P1RCRA NAME RCRA Pesticides

Date & Time Collected 03/05/85 Category

DATE EXTRACTED 03/07/85 DATE INJECTED 03/19/85 VERIFIED BY MSF

CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER PESTICIDES	RESULT	DET. LIMIT
Endrin	ND	0.1			
Lindane	ND	0.1			
Methoxychlor	ND	1.0			
Toxaphene	ND	1.0			
Chlordane	ND	1.0			

NOTES AND DEFINITIONS FOR THIS REPORT

SAMPLE ID [illegible] FRACTION OSC TEST CODE PIRCRA NAME RCRA Pesticides
Date & Time Collected 03/05/85 Category

[illegible] detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

Analytical Serv REPORT LAB # 85-03-049

RECEIVED: 03/05/85

Results by Sample

SAMPLE ID 850972 FRACTION 06A TEST CODE GC 601 NAME EPA Method 601/GC

Date & Time Collected 03/05/85 Category

DATA FILE G DATE INJECTED 03/08/85 ANALYST MCL VERIFIED BY JSG

CONC FACTOR INSTRUMENT q COMPOUNDS DETECTED 1

SCAN	COMPOUND	RESULT
	Chloromethane	ND
	Bromomethane	ND
	Vinyl Chloride	ND
	Chloroethane	ND
	Methylene Chloride	ND
	Trichlorofluoromethane	3.8
	1,1-Dichloroethene	ND
	1,1-Dichloroethane	ND
	trans-1,2-Dichloroethene	ND
	Chloroform	ND
	1,2-Dichloroethane	ND
	1,1,1-Trichloroethane	ND
	Carbon Tetrachloride	ND
	Bromodichloromethane	ND
	1,2-Dichloropropane	ND
	trans-1,3-Dichloropropene	ND

SCAN	COMPOUND	RESULT
	Trichloroethene	ND
	Dibromochloromethane *	ND
	1,1,2-Trichloroethane *	ND
	cis-1,3-Dichloropropene *	ND
	2-Chloroethylvinyl Ether	ND
	Bromoform	ND
	1,1,2,2-Tetrachloroethane #	ND
	Tetrachloroethylene #	ND
	Chlorobenzene	ND
	1,3-Dichlorobenzene	ND
	1,2-Dichlorobenzene	ND
	1,4-Dichlorobenzene	ND

SAMPLE ID [illegible] FRACTION Q&A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 03/05/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT:

SCAN = scan number or retention time on chromatogram.
All results reported in ug/l unless otherwise specified.
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

CORPORATION

PAGE 34 Analytical Serv REPORT LAB # 85-03-049
RECEIVED: 03/06/85 Results by Sample

SAMPLE ID 850972 FRACTION 06B TEST CODE GC 602 NAME EPA Method 602/GC
Date & Time Collected 03/05/85 Category

DATA FILE D DATE INJECTED 03/10/85 ANALYST MCL VERIFIED BY JSG
CONC FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND [illegible] qualified FOR this REPORT
[illegible] to shoulder of retention time or chromatogram.
All [illegible] reported to [illegible] ug/L unless otherwise specified
ND - not detected at EPA detection limit method 602, (Federal Register, 12/3/79)

CORPORATION

PAGE 1 Analytical Serv REPORT LAB # 85-03-050

RECEIVED 03/06/85 04/11/85 11:50:11

REPORT TO: Radian
BI 4
Austin

ATTEN: Larry French

CLIENT: CARSWELL DOA SAMPLES: 8
COMPANY: Carswell AFB
FACILITY:

WORK ID: water site 4
TAKEN: PAN
TRANS: Fed Ex
TYPE:
P.O. #: 214-114-06-44
INVOICE: under separate cover

PREPARED BY: Radian Analytical Services
8501 MoPac Blvd
P.O. Box 9948
Austin, Texas 78766

ATTEN:
PHONE: (512) 454-4797

CERTIFIED BY

CONTACT CONOVER

Note: Second column confirmation performed by EPA 601, splits 01 to 08 and EPA 602, split 06.

Footnotes and Comments

* Indicates a value less than 5 times the detection limit. Potential error for such low values ranges between 50 and 100%.

@ Indicates that spike recovery for this analysis on the specific matrix was not within acceptable limits indicating an interferent present.

SAMPLE IDENTIFICATION

01	850951
02	850952
03	850953
04	850954
05	850955
06	850956
07	850957
08	850958

Analytical Serv TEST CODES and NAMES used on this report

EP MET	RCRA Metals
EX 509	Extraction only-509B Herb.
EX 608	Extraction only - 608
GC 601	EPA Method 601/GC
GC 602	EPA Method 602/GC
H1RCRA	RCRA Herbicides
ONG IR	Oil and Grease, Infrared
P1RCRA	RCRA Pesticides
PHEN A	Total Phenolics
TOC	Total Organic Carbon

CORPORATION

PAGE 2 Analytical Serv REPORT LAB # 85-03-050
RECEIVED: 03/06/85
RESULTS BY TEST

TEST CODE default units	Sample 01 (entered units)	Sample 02 (entered units)	Sample 03 (entered units)	Sample 05 (entered units)	Sample 07 (entered units)
EX_509 date complete	03/12/85	03/12/85	03/12/85	03/12/85	03/12/85
EX_608 date complete	03/07/85	03/07/85	03/07/85	03/07/85	03/07/85
ONG_IR mg/L	<1	<1	<1	<1	<1
PHEN_A mg/L	<.005	<.005	<.005	<.005	<.005
TOC mg/L	8	2	8	5	28

CORPORATION

PAGE 3 Analytical Serv REPORT LAB # 85-03-050
RECEIVED: 03/06/85 Results by Sample

SAMPLE ID 850951 FRACTION 01F TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 03/04/85 Category

DATE ANALYZED 03/14/85 VERIFIED BY GMC

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	< .002	AS	Arsenic	< .060
BA	Barium	0.089	HG	Mercury	< .0002
CD	Cadmium	< .002	PB	Lead	< .080
CR	Chromium	< .005	SE	Selenium	< .080

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/ml unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

CORPORATION

PAGE 4 Analytical Serv REPORT LAB # 85-03-050

RECEIVED: 03/06/85 Results by Sample

SAMPLE ID 850951 FRACTION 01A TEST CODE GC 601 NAME EPA Method 601/GC

Date & Time Collected 03/04/85 Category

DATA FILE 8 DATE INJECTED 03/08/85 ANALYST MCL VERIFIED BY JSG

CONC FACTOR INSTRUMENT b COMPOUNDS DETECTED 4

SCAN	COMPOUND	RESULT
	Chloromethane	ND
	Bromomethane	ND
	Vinyl Chloride	ND
	Chloroethane	ND
	Methylene Chloride	ND
1	Trichlorofluoromethane	5.1
2	1,1-Dichloroethene	3.1
	1,1-Dichloroethane	ND
	trans-1,2-Dichloroethene	ND
	Chloroform	ND
	1,2-Dichloroethane	ND
3	1,1,1-Trichloroethane	5.2
	Carbon Tetrachloride	ND
	Bromodichloromethane	ND
	1,2-Dichloropropane	ND
	trans-1,3-Dichloropropene	ND

SCAN	COMPOUND	RESULT
4	Trichloroethene	3.1
	Dibromochloromethane *	ND
	1,1,2-Trichloroethane *	ND
	cis-1,3-Dichloropropene *	ND
	2-Chloroethylvinyl Ether	ND
	Bromoform	ND
	1,1,2,2-Tetrachloroethane #	ND
	Tetrachloroethylene #	ND
	Chlorobenzene	ND
	1,3-Dichlorobenzene	ND
	1,2-Dichlorobenzene	ND
	1,4-Dichlorobenzene	ND

CORPORATION

PAGE 5 Analytical Serv REPORT LAB # 85-03-050
RECEIVED: 03/06/85 Results by Sample Continued From Above

SAMPLE ID 850951 FRACTION 01A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 03/04/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

CORPORATION

PAGE 6 Analytical Serv REPORT LAB # 85-03-050
RECEIVED: 03/06/85 Results by Sample

SAMPLE ID 850951 FRACTION 01B TEST CODE GC 602 NAME EPA Method 602/GC
Date & Time Collected 03/04/85 Category

DATA FILE D DATE INJECTED 03/10/85 ANALYST ML VERIFIED BY JSG
CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT:
SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79).

SAMPLE ID 850951 FRACTION 01C TEST CODE H1RCRA NAME RCRA Herbicides
Date & Time Collected 03/04/85 Category

DATE EXTRACTED 03/12/85 DATE INJECTED 04/09/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER HERBICIDES	RESULT	DET. LIMIT
2,4-D	ND	5			
2,4,5-TP (Silvex)	ND	5			
2,4,5-T	ND	5			

NOTES AND DEFINITIONS FOR THIS REPORT.
ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

SAMPLE ID 850951 FRACTION 01C TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 03/04/85 Category

DATE EXTRACTED 03/07/85 DATE INJECTED 03/19/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER PESTICIDES	RESULT	DET. LIMIT
Lindane	ND	0.1			
Endrin	ND	0.1			
Methoxychlor	ND	1.0			
Toxaphene	ND	1.0			
Chlordane	ND	1.0			

NOTES AND DEFINITIONS FOR THIS REPORT.

CORPORATION

PAGE 8 Analytical Serv REPORT LAB # 85-03-050
RECEIVED: 03/06/85 Results by Sample Continued From Above

SAMPLE ID 850951 FRACTION 01C TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 03/04/85 Category

ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

CORPORATION

PAGE 9 Analytical Serv REPORT LAB # 85-03-050
RECEIVED: 03/06/85 Results by Sample

SAMPLE ID 850952 FRACTION 02F TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 03/04/85 Category

DATE ANALYZED 03/14/85 VERIFIED BY GMC

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	< .002	AS	Arsenic	< .060
BA	Barium	0.080	HG	Mercury	< .0002
CD	Cadmium	< .002	PB	Lead	< .080
CR	Chromium	< .005	SE	Selenium	< .080

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/ml unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

CORPORATION

PAGE 10 Analytical Serv REPORT LAB # 85-03-050
RECEIVED: 03/06/85 Results by Sample

SAMPLE ID 850952 FRACTION 02A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 03/04/85 Category

DATA FILE 8 DATE INJECTED 03/08/85 ANALYST MCL VERIFIED BY JSG
CONC FACTOR INSTRUMENT b COMPOUNDS DETECTED 4

SCAN	COMPOUND	RESULT
	Chloromethane	ND
	Bromomethane	ND
	Vinyl Chloride	ND
	Chloroethane	ND
	Methylene Chloride	ND
1	Trichlorofluoromethane	3.8
2	1,1-Dichloroethene	3.2
	1,1-Dichloroethane	ND
	trans-1,2-Dichloroethene	ND
	Chloroform	ND
	1,2-Dichloroethane	ND
3	1,1,1-Trichloroethane	8.6
	Carbon Tetrachloride	ND
	Bromodichloromethane	ND
	1,2-Dichloropropane	ND
	trans-1,3-Dichloropropene	ND

SCAN	COMPOUND	RESULT
4	Trichloroethene	3.1
	Dibromochloromethane *	ND
	1,1,2-Trichloroethane *	ND
	cis-1,3-Dichloropropene *	ND
	2-Chloroethylvinyl Ether	ND
	Bromoform	ND
	1,1,2,2-Tetrachloroethane #	ND
	Tetrachloroethylene #	ND
	Chlorobenzene	ND
	1,3-Dichlorobenzene	ND
	1,2-Dichlorobenzene	ND
	1,4-Dichlorobenzene	ND

CORPORATION

PAGE 11 Analytical Serv REPORT LAB # 85-03-050
RECEIVED: 03/06/85 Results by Sample Continued From Above

SAMPLE ID 850952 FRACTION 02A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 03/04/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT

SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

CORPORATION

PAGE 12 Analytical Serv REPORT LAB # 85-03-050
RECEIVED: 03/06/85 Results by Sample

SAMPLE ID 850952 FRACTION 02B TEST CODE GC 602 NAME EPA Method 602/GC
Date & Time Collected 03/04/85 Category

DATA FILE D DATE INJECTED 03/10/85 ANALYST RAA VERIFIED BY JSG
CONC FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT
SCAN = scan number or retention time on chromatogram
All results reported in ug/L unless otherwise specified
ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79)

CORPORATION

PAGE 13 Analytical Serv REPORT LAB # 85-03-050
RECEIVED: 03/06/85 Results by Sample

SAMPLE ID 850952 FRACTION 02C TEST CODE H1RCRA NAME RCRA Herbicides
Date & Time Collected 03/04/85 Category

DATE EXTRACTED 03/12/85 DATE INJECTED 04/09/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER HERBICIDES	RESULT	DET. LIMIT
2,4-D	ND	5			
2,4,5-TP (Silvex)	ND	5			
2,4,5-T	ND	5			

NOTES AND DEFINITIONS FOR THIS REPORT.
ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

SAMPLE ID 850952 FRACTION 02C TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 03/04/85 Category

DATE EXTRACTED 03/07/85 DATE INJECTED 03/19/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER PESTICIDES	RESULT	DET. LIMIT
Lindane	ND	0.1			
Endrin	ND	0.1			
Methoxychlor	ND	1.0			
Toxaphene	ND	1.0			
Chlordane	ND	1.0			

NOTES AND DEFINITIONS FOR THIS REPORT

CORPORATION

PAGE 14 Analytical Serv REPORT LAB # 85-03-050
RECEIVED: 03/05/85 Results by Sample Continued From Above

SAMPLE ID 850952 FRACTION 02C TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 03/04/85 Category

ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

CORPORATION

PAGE 15 Analytical Serv REPORT LAB # 85-03-050
RECEIVED: 03/06/85 Results by Sample

SAMPLE ID 850953 FRACTION 03F TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 03/04/85 Category

DATE ANALYZED 03/14/85 VERIFIED BY GMC

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	< .002	AS	Arsenic	< .060
BA	Barium	0.087	HG	Mercury	0.0002
CD	Cadmium	< .002	PB	Lead	< .080
CR	Chromium	< .005	SE	Selenium	< .080

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/ml unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

CORPORATION

PAGE 16 Analytical Serv REPORT LAB # 85-03-050
RECEIVED: 03/06/85 Results by Sample

SAMPLE ID 850953 FRACTION 03A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 03/04/85 Category

DATA FILE B DATE INJECTED 03/08/85 ANALYST MCL VERIFIED BY JSG
CONC FACTOR INSTRUMENT b COMPOUNDS DETECTED 3

SCAN	COMPOUND	RESULT
	Chloromethane	ND
	Bromomethane	ND
	Vinyl Chloride	ND
	Chloroethane	ND
	Methylene Chloride	ND
1	Trichlorofluoromethane	5.1
	1,1-Dichloroethene	ND
	1,1-Dichloroethane	ND
	trans-1,2-Dichloroethene	ND
	Chloroform	ND
	1,2-Dichloroethane	ND
2	1,1,1-Trichloroethane	3.2
	Carbon Tetrachloride	ND
	Bromodichloromethane	ND
	1,2-Dichloropropane	ND
	trans-1,3 Dichloropropene	ND

SCAN	COMPOUND	RESULT
3	Trichloroethene	1.8
	Dibromochloromethane *	ND
	1,1,2-Trichloroethane *	ND
	cis-1,3-Dichloropropene *	ND
	2-Chloroethylvinyl Ether	ND
	Bromoform	ND
	1,1,2,2-Tetrachloroethane #	ND
	Tetrachloroethylene #	ND
	Chlorobenzene	ND
	1,3-Dichlorobenzene	ND
	1,2-Dichlorobenzene	ND
	1,4-Dichlorobenzene	ND

CORPORATION

PAGE 17 Analytical Serv REPORT LAB # 85-03-050
RECEIVED: 03/06/85 Results by Sample Continued From Above

SAMPLE ID 850953 FRACTION 03A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 03/04/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT

SCAN = scan number or retention time on chromatogram
All results reported in ug/l unless otherwise specified.
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

CORPORATION

PAGE 18 Analytical Serv REPORT LAB # 85-03-050
RECEIVED: 03/06/85 Results by Sample

SAMPLE ID 850953 FRACTION 03B TEST CODE GC 602 NAME EPA Method 602/GC
Date & Time Collected 03/04/85 Category

DATA File D DATE INJECTED 03/10/85 ANALYST RAA VERIFIED BY JSG
CONC FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT
SCAN = scan number or retention time on chromatogram
All results reported in ug/l unless otherwise specified
ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79)

CORPORATION

PAGE 19 Analytical Serv REPORT LAB # 85-03-050
RECEIVED: 03/06/85 Results by Sample

SAMPLE ID 850953 FRACTION 03C TEST CODE H1RCRA NAME RCRA Herbicides
Date & Time Collected 03/04/85 Category

DATE EXTRACTED 03/12/85 DATE INJECTED 04/09/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER HERBICIDES	RESULT	DET. LIMIT
2,4-D	ND	5			
2,4,5-TP (Silvex)	ND	5			
2,4,5-T	ND	5			

NOTES AND DEFINITIONS FOR THIS REPORT.
ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

SAMPLE ID 850953 FRACTION 03C TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 03/04/85 Category

DATE EXTRACTED 03/07/85 DATE INJECTED 03/19/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER PESTICIDES	RESULT	DET. LIMIT
Lindane	ND	0.1			
Endrin	ND	0.1			
Methoxychlor	ND	1.0			
Toxaphene	ND	1.0			
Chlordane	ND	1.0			

NOTES AND DEFINITIONS FOR THIS REPORT.

SAMPLE ID 850953 FRACTION 03C TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 03/04/85 Category

ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

CORPORATION

PAGE 21 Analytical Serv REPORT LAB # 85-03-050
RECEIVED: 03/06/85 Results by Sample

SAMPLE ID 850954 FRACTION 04A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 03/04/85 Category

DATA FILE B DATE INJECTED 03/08/85 ANALYST MCL VERIFIED BY JSG
CONC. FACTOR INSTRUMENT b COMPOUNDS DETECTED 3

SCAN	COMPOUND	RESULT
	Chloromethane	ND
	Bromomethane	ND
	Vinyl Chloride	ND
	Chloroethane	ND
	Methylene Chloride	ND
1	Trichlorofluoromethane	4.6
	1,1-Dichloroethene	ND
	1,1-Dichloroethane	ND
	trans-1,2-Dichloroethene	ND
	Chloroform	ND
	1,2-Dichloroethane	ND
2	1,1,1-Trichloroethane	3.3
	Carbon Tetrachloride	ND
	Bromodichloromethane	ND
	1,2-Dichloropropane	ND
	trans-1,3-Dichloropropene	ND

SCAN	COMPOUND	RESULT
3	Trichloroethene	1.8
	Dibromochloromethane *	ND
	1,1,2-Trichloroethane *	ND
	cis-1,3-Dichloropropene *	ND
	2-Chloroethylvinyl Ether	ND
	Bromoform	ND
	1,1,2,2-Tetrachloroethane #	ND
	Tetrachloroethylene #	ND
	Chlorobenzene	ND
	1,3-Dichlorobenzene	ND
	1,2-Dichlorobenzene	ND
	1,4-Dichlorobenzene	ND

CORPORATION

PAGE 22 Analytical Serv REPORT LAB # 85-03-050
RECEIVED: 03/06/85 Results by Sample Continued From Above

SAMPLE ID 850954 FRACTION 04A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 03/04/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

CORPORATION

PAGE 33 Analytical Serv REPORT LAB # 85-03-050
RECEIVED: 03/06/85 Results by Sample

SAMPLE ID 850954 FRACTION 04B TEST CODE GC 602 NAME EPA Method 602/GC
Date & Time Collected 03/04/85 Category

DATA FILE B DATE INJECTED 03/10/85 ANALYST RAA VERIFIED BY JSG
CONC FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT
SCAN = scan number or retention time on chromatogram
All results reported in ug/L unless otherwise specified
ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79).

CORPORATION

PAGE 24 Analytical Serv REPORT LAB # 85-03-050
RECEIVED: 03/06/85 Results by Sample

SAMPLE ID 850955 FRACTION 05F TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 03/05/85 Category

DATE ANALYZED 03/14/85 VERIFIED BY GMC

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	< .002	AS	Arsenic	< .060
BA	Barium	0.15	HG	Mercury	< .0005
CD	Cadmium	< .002	PB	Lead	< .080
CR	Chromium	< .005	SE	Selenium	< .080

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/ml unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

CORPORATION

PAGE 35 Analytical Serv REPORT LAB # 85-03-050
RECEIVED: 03/06/85 Results by Sample

SAMPLE ID 850955 FRACTION 05A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 03/05/85 Category

DATA FILE G DATE INJECTED 03/10/85 ANALYST MCL VERIFIED BY JSG
CONC. FACTOR INSTRUMENT 9 COMPOUNDS DETECTED 6

SCAN	COMPOUND	RESULT
	Chloromethane	ND
	Bromomethane	ND
	Vinyl Chloride	ND
1	Chloroethane	7.0
	Methylene Chloride	ND
2	Trichlorofluoromethane	2.0
	1,1-Dichloroethene	ND
3	1,1-Dichloroethane	4.5
	trans-1,2-Dichloroethene	ND
	Chloroform	ND
	1,2-Dichloroethane	ND
	1,1,1-Trichloroethane	ND
	Carbon Tetrachloride	ND
	Bromodichloromethane	ND
	1,2-Dichloropropane	ND
	trans-1,3-Dichloropropene	ND

SCAN	COMPOUND	RESULT
4	Trichloroethene	29.1
	Dibromochloromethane *	ND
	1,1,2-Trichloroethane *	ND
	cis-1,3-Dichloropropene *	ND
	2-Chloroethylvinyl Ether	ND
	Bromoform	ND
	1,1,2,2-Tetrachloroethane #	ND
5	Tetrachloroethylene #	18.5
	Chlorobenzene	ND
	1,3-Dichlorobenzene	ND
	1,2-Dichlorobenzene	ND
6	1,4-Dichlorobenzene	9.1

CORPORATION

PAGE 36 Analytical Serv REPORT LAB # 85-03-050
RECEIVED: 03/06/85 Results by Sample Continued From Above

SAMPLE ID 850955 FRACTION 05A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 03/05/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

CORPORATION

PAGE 37
RECEIVED: 03/06/85

Analytical Serv REPORT
Results by Sample

LAB # 85-03-050

SAMPLE ID 850955 FRACTION 05B TEST CODE GC 602 NAME EPA Method 602/GC
Date & Time Collected 03/05/85 Category

DATA FILE D DATE INJECTED 03/10/85 ANALYST RAA VERIFIED BY JSG
CONC FACTOR INSTRUMENT d COMPOUNDS DETECTED 1

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
---	Benzene	ND	---	1,3-Dichlorobenzene	ND
---	Toluene	ND	---	1,2-Dichlorobenzene	ND
---	Ethyl Benzene	ND	1	1,4-Dichlorobenzene	5.5

NOTES AND DEFINITIONS FOR THIS REPORT
SCAN = scan number or retention time on chromatogram
All results reported in ug/L unless otherwise specified
ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79)

SAMPLE ID 850955 FRACTION 05C TEST CODE H1RCRA NAME RCRA Herbicides
Date & Time Collected 03/05/85 Category

DATE EXTRACTED 03/12/85 DATE INJECTED 04/09/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER HERBICIDES	RESULT	DET. LIMIT
2,4-D	ND	5			
2,4,5-TP (Silvex)	ND	5			
2,4,5-T	ND	5			

NOTES AND DEFINITIONS FOR THIS REPORT.
ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

SAMPLE ID 850955 FRACTION 05C TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 03/05/85 Category

DATE EXTRACTED 03/07/85 DATE INJECTED 03/19/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER PESTICIDES	RESULT	DET. LIMIT
Lindane	ND	0.1			
Endrin	ND	0.1			
Methoxychlor	ND	1.0			
Toxaphene	ND	1.0			
Chlordane	ND	1.0			

NOTES AND DEFINITIONS FOR THIS REPORT

CORPORATION

PAGE 29 Analytical Serv REPORT LAB # 85-03-050
RECEIVED: 03/06/85 Results by Sample Continued From Above

SAMPLE ID 850955 FRACTION 05C TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 03/05/85 Category

ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

CORPORATION

PAGE 30 Analytical Serv REPORT LAB # 85-03-050
RECEIVED: 03/06/85 Results by Sample

SAMPLE ID 850956 FRACTION Q6A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 03/05/85 Category

DATA FILE G DATE INJECTED 03/10/85 ANALYST MCL VERIFIED BY JSG
CONC. FACTOR INSTRUMENT 9 COMPOUNDS DETECTED 6

SCAN	COMPOUND	RESULT
	Chloromethane	ND
	Bromomethane	ND
	Vinyl Chloride	ND
1	Chloroethane	7.5
	Methylene Chloride	ND
2	Trichlorofluoromethane	3.7
	1,1-Dichloroethene	ND
3	1,1-Dichloroethane	4.7
	trans-1,2-Dichloroethene	ND
	Chloroform	ND
	1,2-Dichloroethane	ND
	1,1,1-Trichloroethane	ND
	Carbon Tetrachloride	ND
	Bromodichloromethane	ND
	1,2-Dichloropropane	ND
	trans-1,3-Dichloropropene	ND

SCAN	COMPOUND	RESULT
4	Trichloroethene	29.8
	Dibromochloromethane *	ND
	1,1,2-Trichloroethane *	ND
	cis-1,3-Dichloropropene *	ND
	2-Chloroethylvinyl Ether	ND
	Bromoform	ND
	1,1,2,2-Tetrachloroethane #	ND
5	Tetrachloroethylene #	18.8
	Chlorobenzene	ND
	1,3-Dichlorobenzene	ND
	1,2-Dichlorobenzene	ND
6	1,4-Dichlorobenzene	8.9

CORPORATION

PAGE 31 Analytical Serv REPORT LAB # 85-03-050
RECEIVED: 03/08/85 Results by Sample Continued From Above

SAMPLE ID 850955 FRACTION 06A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 03/05/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT

SCAN # scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

CORPORATION

PAGE 32 Analytical Serv REPORT LAB # 85-03-050
RECEIVED: 03/06/85 Results by Sample

SAMPLE ID 850956 FRACTION 06B TEST CODE GC 602 NAME EPA Method 602/GC
Date & Time Collected 03/05/85 Category

DATA FILE D DATE INJECTED 03/11/85 ANALYST MCL VERIFIED BY JSG
CONC FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT:
SCAN # scan number or retention time on chromatogram
All results reported in ug/L unless otherwise specified
ND not detected at EPA detection limit method 602, (Federal Register, 12/3/79)

CORPORATION

PAGE 33 Analytical Serv REPORT LAB # 85-03-050
RECEIVED: 03/06/85 Results by Sample

SAMPLE ID 850957 FRACTION 07F TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 03/05/85 Category

DATE ANALYZED 03/14/85 VERIFIED BY GMC

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	< .002	AS	Arsenic	< .060
BA	Barium	0.15	HG	Mercury	< .0005
CD	Cadmium	< .002	PB	Lead	< .080
CR	Chromium	< .005	SE	Selenium	< .080

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/ml unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

CORPORATION

PAGE 34 Analytical Serv REPORT LAB # 85-03-050
RECEIVED: 03/06/85 Results by Sample

SAMPLE ID 850957 FRACTION 07A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 03/05/85 Category

DATA FILE G DATE INJECTED 03/10/85 ANALYST RAA VERIFIED BY JSG
CONC FACTOR INSTRUMENT g COMPOUNDS DETECTED 1

SCAN	COMPOUND	RESULT
	Chloromethane	ND
	Bromomethane	ND
	Vinyl Chloride	ND
	Chloroethane	ND
	Methylene Chloride	ND
	Trichlorofluoromethane	ND
	1,1-Dichloroethene	ND
	1,1-Dichloroethane	ND
	trans-1,2-Dichloroethene	ND
	Chloroform	ND
	1,2-Dichloroethane	ND
	1,1,1-Trichloroethane	ND
	Carbon Tetrachloride	ND
	Bromodichloromethane	ND
	1,2-Dichloropropane	ND
	trans-1,3-Dichloropropene	ND

SCAN	COMPOUND	RESULT
1	Trichloroethene	3060
	Dibromochloromethane *	ND
	1,1,2-Trichloroethane *	ND
	cis-1,3-Dichloropropene *	ND
	2-Chloroethylvinyl Ether	ND
	Bromoform	ND
	1,1,2,2-Tetrachloroethane #	ND
	Tetrachloroethylene #	ND
	Chlorobenzene	ND
	1,3-Dichlorobenzene	ND
	1,2-Dichlorobenzene	ND
	1,4-Dichlorobenzene	ND

CORPORATION

PAGE 35 Analytical Serv REPORT LAB # 85-03-050
RECEIVED: 03/06/85 Results by Sample Continued From Above

SAMPLE ID 850957 FRACTION 07A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 03/05/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

CORPORATION

PAGE 36 Analytical Serv REPORT LAB # 85-03-050
RECEIVED: 03/06/85 Results by Sample

SAMPLE ID 850957 FRACTION 07B TEST CODE GC 602 NAME EPA Method 602/GC
Date & Time Collected 03/05/85 Category

DATA FILE D DATE INJECTED 03/11/85 ANALYST MCL VERIFIED BY JSG
CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT:
SCAN = scan number or retention time on chromatogram
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79)

SAMPLE ID 850957 FRACTION 07C TEST CODE H1RCRA NAME RCRA Herbicides
Date & Time Collected 03/05/85 Category

DATE EXTRACTED 03/12/85 DATE INJECTED 04/09/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER HERBICIDES	RESULT	DET. LIMIT
2,4-D	ND	5			
2,4,5-TP (Silvex)	ND	5			
2,4,5-T	ND	5			

NOTES AND DEFINITIONS FOR THIS REPORT.
ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

SAMPLE ID 850957 FRACTION 07C TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 03/05/85 Category

DATE EXTRACTED 03/07/85 DATE INJECTED 03/19/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER PESTICIDES	RESULT	DET. LIMIT
Lindane	ND	0.1			
Endrin	ND	0.1			
Methoxychlor	ND	1.0			
Toxaphene	ND	1.0			
Chlordane	ND	1.0			

NOTES AND DEFINITIONS FOR THIS REPORT

CORPORATION

PAGE 38 Analytical Serv REPORT LAB # 85-03-050
RECEIVED: 03/06/85 Results by Sample Continued From Above

SAMPLE ID 850957 FRACTION 07C TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 03/05/85 Category

ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

CORPORATION

PAGE 39 Analytical Serv REPORT LAB # 85-03-050
RECEIVED: 03/06/85 Results by Sample

SAMPLE ID 850958 FRACTION 08A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 03/05/85 Category

DATA FILE G DATE INJECTED 03/10/85 ANALYST RAA VERIFIED BY JSG
CONC. FACTOR INSTRUMENT q COMPOUNDS DETECTED 1

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Chloromethane	ND	1	Trichloroethene	3140
	Bromomethane	ND		Dibromochloromethane *	ND
	Vinyl Chloride	ND		1,1,2-Trichloroethane *	ND
	Chloroethane	ND		cis-1,3-Dichloropropene *	ND
	Methylene Chloride	ND		2-Chloroethylvinyl Ether	ND
	Trichlorofluoromethane	ND		Bromoform	ND
	1,1-Dichloroethene	ND		1,1,2,2-Tetrachloroethane #	ND
	1,1-Dichloroethane	ND		Tetrachloroethylene #	ND
	trans-1,2-Dichloroethene	ND		Chlorobenzene	ND
	Chloroform	ND		1,3-Dichlorobenzene	ND
	1,2-Dichloroethane	ND		1,2-Dichlorobenzene	ND
	1,1,1-Trichloroethane	ND		1,4-Dichlorobenzene	ND
	Carbon Tetrachloride	ND			
	Bromodichloromethane	ND			
	1,2-Dichloropropane	ND			
	trans-1,3-Dichloropropene	ND			

CORPORATION

PAGE 40 Analytical Serv REPORT LAB # 85-03-050
RECEIVED: 03/06/85 Results by Sample Continued From Above

SAMPLE ID 850958 FRACTION 08A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 03/05/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

CORPORATION

PAGE 41 Analytical Serv REPORT LAB # 85-03-050
RECEIVED: 03/06/85 Results by Sample

SAMPLE ID 850958 FRACTION 08B TEST CODE GC 602 NAME EPA Method 602/GC
Date & Time Collected 03/05/85 Category

DATA FILE D DATE INJECTED 03/11/85 ANALYST MCL VERIFIED BY JSG
CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT.
SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79).

CORPORATION

FRACTION AND TEST CODES FOR WORK NOT REPORTED ELSEWHERE

OSG : LOG_IN
OTG : LOG_IN

RADIAN CORPORATION

PAGE 1 Analytical Serv REPORT LAB # 85-03-051
RECEIVED 03/06/85 04/15/85 13:59:10

REPORT TO Radian
BI 4
Austin

ATTEN Larry French

CLIENT CARSWELL DO6 SAMPLES 8
COMPANY Carswell AFB
FACILITY

WORK ID water sites 4, 5, 10
TAKEN RAW
TRANS Fed Ex
TYPE
P.O # 214-114-06-44
INVOICE under separate cover

PREPARED BY Radian Analytical Services
8501 MoPac Blvd
P.O Box 9948
Austin, Texas 78766

ATTEN
PHONE (512) 454-4797

CERTIFIED BY

CONTACT CONOVER

Note: 2nd column confirmation performed for EPA 601 (splits 01 thru 08) and EPA 602 (03, 04). Detection limit for 602 was 25 ug/L for splits 01, 03 thru 08.

Footnotes and Comments

* Indicates a value less than 5 times the detection limit. Potential error for such low values ranges between 50 and 100%.

@ Indicates that spike recovery for this analysis on the specific matrix was not within acceptable limits indicating an interferent present.

SAMPLE IDENTIFICATION

01	850959
02	850960
03	850965
04	850966
05	850961
06	850962
07	850963
08	850964

Analytical Serv TEST CODES and NAMES used on this report

EP MET	RCRA Metals
EX 509	Extraction only-509B Herb
EX 608	Extraction only - 608
GC 601	EPA Method 601/GC
GC 602	EPA Method 602/GC
H1RCRA	RCRA Herbicides
ONG IR	Oil and Grease, Infrared
P1RCRA	RCRA Pesticides
PHEN A	Total Phenolics
TOC	Total Organic Carbon
TOX 1	TOX Single Analysis

TEST CODE default units	Sample 01 (entered units)	Sample 03 (entered units)	Sample 05 (entered units)	Sample 07 (entered units)
EX_509 date complete	03/20/85	03/20/85		
EX_608 date complete	03/07/85	03/07/85		
ONG_IR mg/L	<1	<1	<1	<1
PHEN_A mg/L	<.005	<.005		
TOC mg/L	5	9	7	7
TOX_1 mg/L		0.02	0.02	0.03

Analytical Serv REPORT LAB # 85-03-051

RECEIVED: 03/06/85

Results by Sample

SAMPLE ID 850959 FRACTION 01F TEST CODE EP MET NAME RCRA Metals

Date & Time Collected 03/05/85 Category

DATE ANALYZED 03/14/85 VERIFIED BY GMC

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	< 002	AS	Arsenic	< 060
BA	Barium	0 094	HG	Mercury	< 0002
CD	Cadmium	< 002	PB	Lead	< 080
CR	Chromium	< 005	SE	Selenium	< 080

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/ml unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

CORPORATION

PAGE 4 Analytical Serv REPORT LAB # 85-03-051
RECEIVED: 03/06/85 Results by Sample

SAMPLE ID 850959 FRACTION 01A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 03/05/85 Category

DATA FILE Q DATE INJECTED 03/08/85 ANALYST CAC VERIFIED BY JSG
CONC FACTOR INSTRUMENT q COMPOUNDS DETECTED 1

SCAN	COMPOUND	RESULT
	Chloromethane	ND
	Bromomethane	ND
	Vinyl Chloride	ND
	Chloroethane	ND
	Methylene Chloride	ND
	Trichlorofluoromethane	ND
	1,1-Dichloroethene	ND
	1,1-Dichloroethane	ND
	trans-1,2-Dichloroethene	ND
	Chloroform	ND
	1,2-Dichloroethane	ND
	1,1,1-Trichloroethane	ND
	Carbon Tetrachloride	ND
	Bromodichloromethane	ND
	1,2-Dichloropropane	ND
	trans-1,3-Dichloropropene	ND
1	Trichloroethene	3800
	Dibromochloromethane *	ND
	1,1,2-Trichloroethane *	ND
	cis-1,3-Dichloropropene *	ND
	2-Chloroethylvinyl Ether	ND
	Bromoform	ND
	1,1,2,2-Tetrachloroethane #	ND
	Tetrachloroethylene #	ND
	Chlorobenzene	ND
	1,3-Dichlorobenzene	ND
	1,2-Dichlorobenzene	ND
	1,4-Dichlorobenzene	ND

SAMPLE ID 850959 FRACTION 01A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 03/05/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

Analytical Serv REPORT LAB # 85-03-051

RECEIVED: 03/08/85

Results by Sample

SAMPLE ID 850939 FRACTION 01B TEST CODE GC 602 NAME EPA Method 602/GC

Date & Time Collected 03/05/85 Category

DATA FILE D DATE INJECTED 03/11/85 ANALYST MCL VERIFIED BY JSG

CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT:

SCAN = scan number or retention time on chromatogram

all results reported in ug/L unless otherwise specified.

ND = not detected at EPA detection limit method 602. (Federal Register, 12/3/79)

Analytical Serv REPORT LAB # 85-03-051

RECEIVED: 03/06/85 Results by Sample

SAMPLE ID 850959 FRACTION 01G TEST CODE H1RCRA NAME RCRA Herbicides

Date & Time Collected 03/05/85 Category

DATE EXTRACTED 03/20/85 DATE INJECTED 04/08/85 VERIFIED BY MSF

CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER HERBICIDES	RESULT	DET. LIMIT
2,4-D	ND	5			
2,4,5-TP (Silvex)	ND	5			
2,4,5-T	ND	5			

NOTES AND DEFINITIONS FOR THIS REPORT.

ND = not detected at the specified detection limit.

All results reported in micrograms/liter unless otherwise specified.

SAMPLE ID 850959 FRACTION 01G TEST CODE P1RCRA NAME RCRA Pesticides

Date & Time Collected 03/05/85 Category

DATE EXTRACTED 03/07/85 DATE INJECTED 03/19/85 VERIFIED BY MSF

CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER PESTICIDES	RESULT	DET. LIMIT
Lindane	ND	0.1			
Endrin	ND	0.1			
Methoxychlor	ND	1.0			
Toxaphene	ND	1.0			
Chlordane	ND	1.0			

NOTES AND DEFINITIONS FOR THIS REPORT.

[redacted]
CORPORATION

PAGE 8 Analytical Serv REPORT LAB # 85-03-051
RECEIVED: 03/06/85 Results by Sample Continued From Above

SAMPLE ID 850959 FRACTION 01G TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 03/05/85 Category

ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

Analytical Serv REPORT LAB # 85-03-051

RECEIVED: 03/06/85 Results by Sample

SAMPLE ID 850980 FRACTION 02A TEST CODE GC 601 NAME EPA Method 601/GC

Date & Time Collected 03/05/85 Category

DATA FILE G DATE INJECTED 03/08/85 ANALYST RAA VERIFIED BY JSG

CONC FACTOR INSTRUMENT 9 COMPOUNDS DETECTED 1

SCAN	COMPOUND	RESULT
	Chloromethane	ND
	Bromomethane	ND
	Vinyl Chloride	ND
	Chloroethane	ND
	Methylene Chloride	ND
	Trichlorofluoromethane	ND
	1,1-Dichloroethene	ND
	1,1-Dichloroethane	ND
	trans-1,2-Dichloroethene	ND
	Chloroform	ND
	1,2-Dichloroethane	ND
	1,1,1-Trichloroethane	ND
	Carbon Tetrachloride	ND
	Bromodichloromethane	ND
	1,2-Dichloropropane	ND
	trans-1,3-Dichloropropene	ND
1	Trichloroethene	4550
	Dibromochloromethane *	ND
	1,1,2-Trichloroethane *	ND
	cis-1,3-Dichloropropene *	ND
	2-Chloroethylvinyl Ether	ND
	Bromoform	ND
	1,1,2,2-Tetrachloroethane #	ND
	Tetrachloroethylene #	ND
	Chlorobenzene	ND
	1,3-Dichlorobenzene	ND
	1,2-Dichlorobenzene	ND
	1,4-Dichlorobenzene	ND

SAMPLE ID 850960 FRACTION 02A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 03/05/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

Analytical Serv REPORT

LAB # 85-03-051

RECEIVED: 03/06/85

Results by Sample

SAMPLE ID 850980 FRACTION 02B TEST CODE GC 602 NAME EPA Method 602/GC

Date & Time Collected 03/05/85 Category

DATA FILE D DATE INJECTED 03/11/85 ANALYST MCL VERIFIED BY JSG

CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT

SCAN = scan number or retention time on chromatogram.

All results reported in ug/L unless otherwise specified

ND = Not detected at EPA detection limit method 602, (Federal Register, 12/3/79).

Analytical Serv REPORT LAB # 85-03-051

RECEIVED: 03/06/85

Results by Sample

SAMPLE ID 850965 FRACTION 03F TEST CODE EP MET NAME RCRA Metals

Date & Time Collected 03/05/85 Category

DATE ANALYZED 03/14/85 VERIFIED BY GMC

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	< .002	AS	Arsenic	< .060
BA	Barium	0.41	HG	Mercury	< .0002
CD	Cadmium	< .002	PB	Lead	< .080
CR	Chromium	< .005	SE	Selenium	< .080

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/ml unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

Analytical Serv REPORT

LAB # 85-03-051

RECEIVED: 03/06/85

Results by Sample

SAMPLE ID 850965 FRACTION 03A TEST CODE GC 601 NAME EPA Method 601/GC

Date & Time Collected 03/05/85 Category

DATA FILE G DATE INJECTED 03/08/85 ANALYST RAA VERIFIED BY JSG

CONC. FACTOR INSTRUMENT g COMPOUNDS DETECTED 2

SCAN	COMPOUND	RESULT
	Chloromethane	ND
	Bromomethane	ND
1	Vinyl Chloride	165
	Chloroethane	ND
	Methylene Chloride	ND
	Trichlorofluoromethane	ND
	1,1-Dichloroethene	ND
	1,1-Dichloroethane	ND
	trans-1,2-Dichloroethene	ND
	Chloroform	ND
	1,2-Dichloroethane	ND
	1,1,1-Trichloroethane	ND
	Carbon Tetrachloride	ND
	Bromodichloromethane	ND
	1,2-Dichloropropane	ND
	trans-1,3-Dichloropropene	ND

SCAN	COMPOUND	RESULT
2	Trichloroethene	39.6
	Dibromochloromethane *	ND
	1,1,2-Trichloroethane *	ND
	cis-1,3-Dichloropropene *	ND
	2-Chloroethylvinyl Ether	ND
	Bromoform	ND
	1,1,2,2-Tetrachloroethane #	ND
	Tetrachloroethylene #	ND
	Chlorobenzene	ND
	1,3-Dichlorobenzene	ND
	1,2-Dichlorobenzene	ND
	1,4-Dichlorobenzene	ND

SAMPLE ID 850965 FRACTION 03A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 03/05/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

SAMPLE ID 850965 FRACTION 03B TEST CODE GC 602 NAME EPA Method 602/GC
Date & Time Collected 03/05/85 Category

DATA FILE D DATE INJECTED 03/11/85 ANALYST MCL VERIFIED BY JSG
CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT
SCAN - scan number or retention time on chromatogram
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79).

SAMPLE ID 850965 FRACTION 03G TEST CODE H1RCRA NAME RCRA Herbicides
Date & Time Collected 03/05/85 Category

DATE EXTRACTED 03/20/85 DATE INJECTED 04/08/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER HERBICIDES	RESULT	DET. LIMIT
2,4-D	ND	5			
2,4,5-TP (Silvex)	ND	5			
2,4,5-T	ND	5			

NOTES AND DEFINITIONS FOR THIS REPORT.
ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

SAMPLE ID 850965 FRACTION 03G TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 03/05/85 Category

DATE EXTRACTED 03/07/85 DATE INJECTED 03/19/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER PESTICIDES	RESULT	DET. LIMIT
Lindane	ND	0.1			
Endrin	ND	0.1			
Methoxychlor	ND	1.0			
Toxaphene	ND	1.0			
Chlordane	ND	1.0			

NOTES AND DEFINITIONS FOR THIS REPORT

SAMPLE ID 850965 FRACTION 03G TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 03/05/85 Category

ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

Analytical Serv REPORT LAB # 85-03-051

RECEIVED: 03/06/85 Results by Sample

SAMPLE ID 850985 FRACTION 04A TEST CODE GC 601 NAME EPA Method 601/GC

Date & Time Collected 03/05/85 Category

DATA FILE G DATE INJECTED 03/08/85 ANALYST RAA VERIFIED BY JSG

CONC FACTOR INSTRUMENT 9 COMPOUNDS DETECTED 2

SCAN	COMPOUND	RESULT
	Chloromethane	ND
	Bromomethane	ND
1	Vinyl Chloride	178
	Chloroethane	ND
	Methylene Chloride	ND
	Trichlorofluoromethane	ND
	1,1-Dichloroethene	ND
	1,1-Dichloroethane	ND
	trans-1,2-Dichloroethene	ND
	Chloroform	ND
	1,2-Dichloroethane	ND
	1,1,1-Trichloroethane	ND
	Carbon Tetrachloride	ND
	Bromodichloromethane	ND
	1,2-Dichloropropane	ND
	trans-1,3-Dichloropropene	ND

SCAN	COMPOUND	RESULT
2	Trichloroethene	37.1
	Dibromochloromethane *	ND
	1,1,2-Trichloroethane *	ND
	cis-1,3-Dichloropropene *	ND
	2-Chloroethylvinyl Ether	ND
	Bromoform	ND
	1,1,2,2-Tetrachloroethane #	ND
	Tetrachloroethylene #	ND
	Chlorobenzene	ND
	1,3-Dichlorobenzene	ND
	1,2-Dichlorobenzene	ND
	1,4-Dichlorobenzene	ND

Analytical Serv REPORT

LAB # 85-03-051

RECEIVED: 03/06/85

Results by Sample

Continued From Above

SAMPLE ID 850966 FRACTION 04A TEST CODE GC 601 NAME EPA Method 601/GC

Date & Time Collected 03/05/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

CORPORATION

PAGE 20 Analytical Serv REPORT LAB # 85-03-051
RECEIVED: 03/06/85 Results by Sample

SAMPLE ID 850966 FRACTION 04B TEST CODE GC 602 NAME EPA Method 602/GC
Date & Time Collected 03/05/85 Category

DATA FILE D DATE INJECTED 03/11/85 ANALYST MCL VERIFIED BY JSG
CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT
SCAN - scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified
ND - not detected at EPA detection limit method 602. (Federal Register, 12/3/79).

[redacted]
CORPORATION

PAGE 21 Analytical Serv REPORT LAB # 85-03-051
RECEIVED: 03/06/85 Results by Sample

SAMPLE ID 850961 FRACTION 05A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 03/05/85 Category

DATA FILE G DATE INJECTED 03/08/85 ANALYST RAA VERIFIED BY JSG
CONC. FACTOR INSTRUMENT q COMPOUNDS DETECTED 2

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Chloromethane	ND	1	Trichloroethene	5000
	Bromomethane	ND		Dibromochloromethane *	ND
	Vinyl Chloride	ND		1,1,2-Trichloroethane *	ND
	Chloroethane	ND		cis-1,3-Dichloropropene *	ND
	Methylene Chloride	ND		2-Chloroethylvinyl Ether	ND
	Trichlorofluoromethane	ND		Bromoform	ND
	1,1-Dichloroethene	ND		1,1,2,2-Tetrachloroethane #	ND
	1,1-Dichloroethane	ND	2	Tetrachloroethylene #	43.3
	trans-1,2-Dichloroethene	ND		Chlorobenzene	ND
	Chloroform	ND		1,3-Dichlorobenzene	ND
	1,2-Dichloroethane	ND		1,2-Dichlorobenzene	ND
	1,1,1-Trichloroethane	ND		1,4-Dichlorobenzene	ND
	Carbon Tetrachloride	ND			
	Bromodichloromethane	ND			
	1,2-Dichloropropane	ND			
	trans-1,3-Dichloropropene	ND			

SAMPLE ID 850961 FRACTION 05A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 03/05/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

Analytical Serv REPORT LAB # 85-03-051

RECEIVED: 03/06/85

Results by Sample

SAMPLE ID 850961 FRACTION 05B TEST CODE GC 602 NAME EPA Method 602/GC

Date & Time Collected 03/05/85 Category

DATA FILE D DATE INJECTED 03/11/85 ANALYST MCL VERIFIED BY JSG

CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT

SCAN = scan number or retention time on chromatogram.

All results reported in ug/L unless otherwise specified

ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79).

Analytical Serv REPORT LAB # 85-03-051

RECEIVED: 03/06/85 Results by Sample

SAMPLE ID 850962 FRACTION 06A TEST CODE GC 601 NAME EPA Method 601/GC

Date & Time Collected 03/05/85 Category

DATA FILE g DATE INJECTED 03/10/85 ANALYST MCL VERIFIED BY JSG

CONC. FACTOR INSTRUMENT g COMPOUNDS DETECTED 2

SCAN	COMPOUND	RESULT
	Chloromethane	ND
	Bromomethane	ND
	Vinyl Chloride	ND
	Chloroethane	ND
	Methylene Chloride	ND
	Trichlorofluoromethane	ND
	1,1-Dichloroethene	ND
	1,1-Dichloroethane	ND
	trans-1,2-Dichloroethene	ND
	Chloroform	ND
	1,2-Dichloroethane	ND
	1,1,1-Trichloroethane	ND
	Carbon Tetrachloride	ND
	Bromodichloromethane	ND
	1,2-Dichloropropane	ND
	trans-1,3-Dichloropropene	ND
1	Trichloroethene	4560
	Dibromochloromethane *	ND
	1,1,2-Trichloroethane *	ND
	cis-1,3-Dichloropropene *	ND
	2-Chloroethylvinyl Ether	ND
	Bromoform	ND
	1,1,2,2-Tetrachloroethane #	ND
2	Tetrachloroethylene #	42.7
	Chlorobenzene	ND
	1,3-Dichlorobenzene	ND
	1,2-Dichlorobenzene	ND
	1,4-Dichlorobenzene	ND

SAMPLE ID 850962 FRACTION Q6A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 03/05/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

CORPORATION

PAGE 26 Analytical Serv REPORT LAB # 85-03-051
RECEIVED: 03/06/85 Results by Sample

SAMPLE ID 850962 FRACTION 06B TEST CODE GC 602 NAME EPA Method 602/GC
Date & Time Collected 03/05/85 Category

DATA FILE D DATE INJECTED 03/11/85 ANALYST MCL VERIFIED BY JSG
CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT.
SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79).

RECEIVED: 03/06/85 Results by Sample

SAMPLE ID 850963 FRACTION 07A TEST CODE GC 601 NAME EPA Method 601/GC

Date & Time Collected 03/05/85 Category

DATA FILE G DATE INJECTED 03/10/85 ANALYST MCL VERIFIED BY JSG

CONC. FACTOR INSTRUMENT g COMPOUNDS DETECTED 1

SCAN	COMPOUND	RESULT
	Chloromethane	ND
	Bromomethane	ND
	Vinyl Chloride	ND
	Chloroethane	ND
	Methylene Chloride	ND
	Trichlorofluoromethane	ND
	1,1-Dichloroethene	ND
	1,1-Dichloroethane	ND
	trans-1,2-Dichloroethene	ND
	Chloroform	ND
	1,2-Dichloroethane	ND
	1,1,1-Trichloroethane	ND
	Carbon Tetrachloride	ND
	Bromodichloromethane	ND
	1,2-Dichloropropane	ND
	trans-1,3-Dichloropropene	ND

SCAN	COMPOUND	RESULT
1	Trichloroethene	2130
	Dibromochloromethane *	ND
	1,1,2-Trichloroethane *	ND
	cis-1,3-Dichloropropene *	ND
	2-Chloroethylvinyl Ether	ND
	Bromoform	ND
	1,1,2,2-Tetrachloroethane #	ND
	Tetrachloroethylene #	ND
	Chlorobenzene	ND
	1,3-Dichlorobenzene	ND
	1,2-Dichlorobenzene	ND
	1,4-Dichlorobenzene	ND

CARDINAL CORPORATION

PAGE 28 Analytical Serv REPORT LAB # 85-03-051
RECEIVED: 03/06/85 Results by Sample Continued From Above

SAMPLE ID 850983 FRACTION 07A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 03/05/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

Analytical Serv REPORT LAB # 85-03-051

RECEIVED: 03/06/85 Results by Sample

SAMPLE ID 8509a3 FRACTION 07B TEST CODE GC 602 NAME EPA Method 602/GC

Date & Time Collected 03/05/85 Category

DATA FILE D DATE INJECTED 03/11/85 ANALYST RAA VERIFIED BY JSG

CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT

SCAN = scan number or retention time on chromatogram.

All results reported in ug/L unless otherwise specified.

ND = not detected at EPA detection limit method 602. (Federal Register, 12/3/79)

Analytical Serv REPORT

LAB # 85-03-051

RECEIVED: 03/06/85

Results by Sample

SAMPLE ID 850964 FRACTION 08A TEST CODE GC 601 NAME EPA Method 601/GC

Date & Time Collected 03/05/85 Category

DATA FILE G DATE INJECTED 03/10/85 ANALYST MCL VERIFIED BY JSG

CONC. FACTOR INSTRUMENT g COMPOUNDS DETECTED 1

SCAN	COMPOUND	RESULT
	Chloromethane	ND
	Bromomethane	ND
	Vinyl Chloride	ND
	Chloroethane	ND
	Methylene Chloride	ND
	Trichlorofluoromethane	ND
	1,1-Dichloroethene	ND
	1,1-Dichloroethane	ND
	trans-1,2-Dichloroethene	ND
	Chloroform	ND
	1,2-Dichloroethane	ND
	1,1,1-Trichloroethane	ND
	Carbon Tetrachloride	ND
	Bromodichloromethane	ND
	1,2-Dichloropropane	ND
	trans-1,3-Dichloropropene	ND
1	Trichloroethene	2250
	Dibromochloromethane *	ND
	1,1,2-Trichloroethane *	ND
	cis-1,3-Dichloropropene *	ND
	2-Chloroethylvinyl Ether	ND
	Bromoform	ND
	1,1,2,2-Tetrachloroethane #	ND
	Tetrachloroethylene #	ND
	Chlorobenzene	ND
	1,3-Dichlorobenzene	ND
	1,2-Dichlorobenzene	ND
	1,4-Dichlorobenzene	ND

SAMPLE ID 850964 FRACTION 08A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 03/05/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

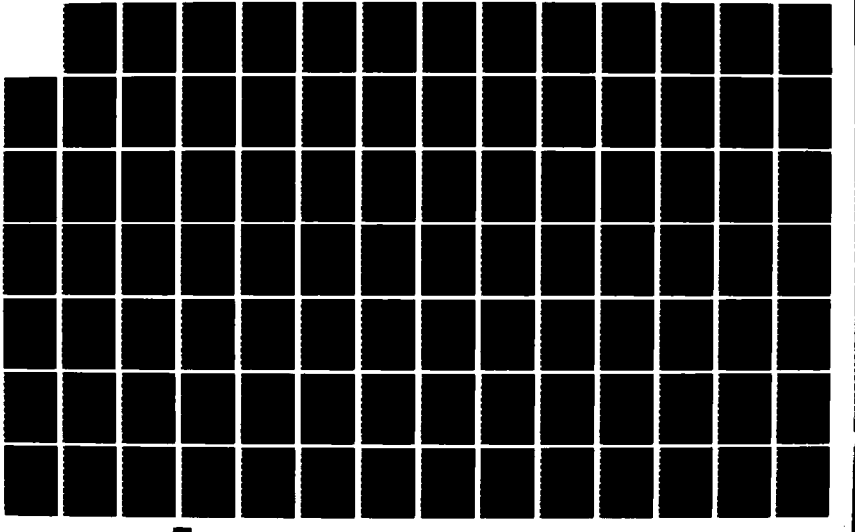
SAMPLE ID 850964 FRACTION 08B TEST CODE GC 602 NAME EPA Method 602/GC
Date & Time Collected 03/05/85 Category

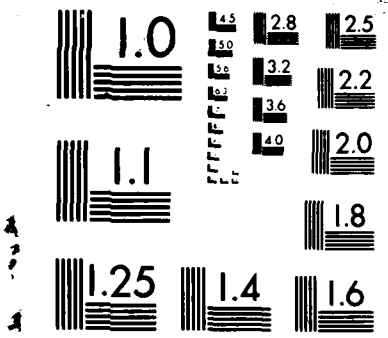
DATA FILE D DATE INJECTED 03/11/85 ANALYST RAA VERIFIED BY JSG
CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT
SCAN - scan number or retention time on chromatogram
All results reported in ug/l unless otherwise specified
ND - not detected at EPA detection limit method 602, (Federal Register, 12/3/79).

AD-A174 196 INSTALLATION RESTORATION PROGRAM PHASE II 8/9
CONFIRMATION/QUANTIFICATION STAGE 1 VOLUME 2 APPENDIX A
(U) RADIAN CORP AUSTIN TX OCT 86 F33615-84-D-4402
UNCLASSIFIED F/G 13/2 NL





MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

FRACTION AND TEST CODES FOR WORK NOT REPORTED ELSEWHERE

O1C : LOG_IN

CORPORATION

PAGE 1 Analytical Serv REPORT LAB # 85-03-063

RECEIVED: 03/07/85 04/22/85 12:17:30

REPORT TO: Radian
Bl. 4
Austin

ATTEN: Larry French

CLIENT: CARSWELL DO6 SAMPLES: 7
COMPANY: Carswell AFB
FACILITY:

WORK ID: water sites 5 and 11
TAKEN: PAW
TRANS TYPE: Fed Ex
P.O. #: 214-114-06-44
INVOICE: under separate cover

PREPARED BY: Radian Analytical Services
8501 MoPac Blvd.
P.O. Box 9948
Austin, Texas 78766

ATTEN:
PHONE: (512) 454-4797

CERTIFIED BY

CONTACT CONOVER

Note: 2nd column confirmation performed for EPA 601 (splits 01 thru 03, 05, 06) and 602 (06, 07). Detection limit for EPA 602 was 25 ug/L for splits 01 thru 03.

Footnotes and Comments

* Indicates a value less than 5 times the detection limit. Potential error for such low values ranges between 50 and 100%.

@ Indicates that spike recovery for this analysis on the specific matrix was not within acceptable limits indicating an interferent present.

SAMPLE IDENTIFICATION

01	850981
02	850982
03	850983
04	850976
05	850977
06	850978
07	850979

Analytical Serv TEST CODES and NAMES used on this report

EP MET	RCRA Metals
EX 509	Extraction only-5098 Herb.
EX 608	Extraction only - 608
GC 601	EPA Method 601/GC
GC 602	EPA Method 602/GC
H1RCRA	RCRA Herbicides
ONG IR	Oil and Grease, Infrared
P1RCRA	RCRA Pesticides
PHEN A	Total Phenolics
TOC	Total Organic Carbon
TOX 1	TOX Single Analysis

CORPORATION

PAGE 2 Analytical Serv REPORT LAB # 85-03-063
RECEIVED: 03/07/85 RESULTS BY TEST

TEST CODE default units	Sample 01 (entered units)	Sample 02 (entered units)	Sample 03 (entered units)	Sample 04 (entered units)	Sample 06 (entered units)
EX_509 date complete	03/20/85	03/20/85		03/20/85	03/21/85
EX_608 date complete	03/12/85	03/12/85		03/12/85	03/12/85
ONG_IR mg/L	<1	<1	<1	<1	<1
PHEN_A mg/L	<.005	<.005		<.005	<.005
TOC mg/L	2	1		7	14
TOX_1 mg/L	0.63	0.85	1.4	0.03	0.27

TEST CODE default units	Sample 07 (entered units)
EX_509 date complete	03/21/85
EX_608 date complete	03/12/85
TOX_1 mg/L	0.23

CORPORATION

PAGE 3 Analytical Serv REPORT LAB # 85-03-063
RECEIVED: 03/07/85 Results by Sample

SAMPLE ID 850981 FRACTION 01G TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 03/06/85 Category

DATE ANALYZED 03/14/85 VERIFIED BY GMC

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	<.002	AS	Arsenic	<.060
BA	Barium	0.13	HG	Mercury	<.0002
CD	Cadmium	<.002	PB	Lead	<.080
CR	Chromium	<.005	SE	Selenium	<.080

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/ml unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

CORPORATION

PAGE 4 Analytical Serv REPORT LAB # 85-03-063
RECEIVED: 03/07/85 Results by Sample

SAMPLE ID 850981 FRACTION 01A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 03/06/85 Category

DATA FILE B DATE INJECTED 03/11/85 ANALYST MCL VERIFIED BY JSG
CONC. FACTOR INSTRUMENT b COMPOUNDS DETECTED 1

SCAN	COMPOUND	RESULT
	Chloromethane	ND
	Bromomethane	ND
	Vinyl Chloride	ND
	Chloroethane	ND
	Methylene Chloride	ND
	Trichlorofluoromethane	ND
	1,1-Dichloroethene	ND
	1,1-Dichloroethane	ND
	trans-1,2-Dichloroethene	ND
	Chloroform	ND
	1,2-Dichloroethane	ND
	1,1,1-Trichloroethane	ND
	Carbon Tetrachloride	ND
	Bromodichloromethane	ND
	1,2-Dichloropropane	ND
	trans-1,3-Dichloropropene	ND

SCAN	COMPOUND	RESULT
1	Trichloroethene	1980
	Dibromochloromethane *	ND
	1,1,2-Trichloroethane *	ND
	cis-1,3-Dichloropropene *	ND
	2-Chloroethylvinyl Ether	ND
	Bromoform	ND
	1,1,2,2-Tetrachloroethane #	ND
	Tetrachloroethylene #	ND
	Chlorobenzene	ND
	1,3-Dichlorobenzene	ND
	1,2-Dichlorobenzene	ND
	1,4-Dichlorobenzene	ND

CORPORATION

PAGE 5 Analytical Serv REPORT LAB # 85-03-063
RECEIVED: 03/07/85 Results by Sample Continued From Above

SAMPLE ID 850981 FRACTION 01A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 03/06/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

CORPORATION

PAGE 6 Analytical Serv REPORT LAB # 85-03-063
RECEIVED: 03/07/85 Results by Sample

SAMPLE ID 850981 FRACTION 01B TEST CODE GC 602 NAME EPA Method 602/GC
Date & Time Collected 03/06/85 Category

DATA FILE D DATE INJECTED 03/11/85 ANALYST RAA VERIFIED BY JSG
CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT.
SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79).

SAMPLE ID 850981 FRACTION 01F TEST CODE H1RCRA NAME RCRA Herbicides
Date & Time Collected 03/06/85 Category

DATE EXTRACTED 03/20/85 DATE INJECTED 04/02/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER HERBICIDES	RESULT	DET. LIMIT
2,4-D	ND	5			
2,4,5-TP (Silvex)	ND	5			
2,4,5-T	ND	5			

NOTES AND DEFINITIONS FOR THIS REPORT.
ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

SAMPLE ID 850981 FRACTION 01F TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 03/06/85 Category

DATE EXTRACTED 03/12/85 DATE INJECTED 03/19/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER PESTICIDES	RESULT	DET. LIMIT
Lindane	ND	0.1			
Endrin	ND	0.1			
Methoxychlor	ND	1.0			
Toxaphene	ND	1.0			
Chlordane	ND	1.0			

NOTES AND DEFINITIONS FOR THIS REPORT.

CORPORATION

PAGE 8 Analytical Serv REPORT LAB # 85-03-063
RECEIVED: 03/07/85 Results by Sample Continued From Above

SAMPLE ID 850981 FRACTION 01F TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 03/06/85 Category

ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

CORPORATION

PAGE 9 Analytical Serv REPORT LAB # 85-03-063
RECEIVED: 03/07/85 Results by Sample

SAMPLE ID 850982 FRACTION 02G TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 03/06/85 Category

DATE ANALYZED 03/14/85 VERIFIED BY GMC

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	<.002	AS	Arsenic	<.060
BA	Barium	0.11	HG	Mercury	<.0002
CD	Cadmium	<.002	PB	Lead	<.080
CR	Chromium	<.005	SE	Selenium	<.080

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/ml unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

CORPORATION

PAGE 10 Analytical Serv REPORT LAB # 85-03-063
RECEIVED: 03/07/85 Results by Sample

SAMPLE ID 850982 FRACTION 02A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 03/06/85 Category

DATA FILE B DATE INJECTED 03/11/85 ANALYST MCL VERIFIED BY JSG
CONC. FACTOR INSTRUMENT b COMPOUNDS DETECTED 1

SCAN	COMPOUND	RESULT
	Chloromethane	ND
	Bromomethane	ND
	Vinyl Chloride	ND
	Chloroethane	ND
	Methylene Chloride	ND
	Trichlorofluoromethane	ND
	1,1-Dichloroethene	ND
	1,1-Dichloroethane	ND
	trans-1,2-Dichloroethene	ND
	Chloroform	ND
	1,2-Dichloroethane	ND
	1,1,1-Trichloroethane	ND
	Carbon Tetrachloride	ND
	Bromodichloromethane	ND
	1,2-Dichloropropane	ND
	trans-1,3-Dichloropropene	ND

SCAN	COMPOUND	RESULT
1	Trichloroethene	2730
	Dibromochloromethane *	ND
	1,1,2-Trichloroethane *	ND
	cis-1,3-Dichloropropene *	ND
	2-Chloroethylvinyl Ether	ND
	Bromoform	ND
	1,1,2,2-Tetrachloroethane #	ND
	Tetrachloroethylene #	ND
	Chlorobenzene	ND
	1,3-Dichlorobenzene	ND
	1,2-Dichlorobenzene	ND
	1,4-Dichlorobenzene	ND

CORPORATION

PAGE 11 Analytical Serv REPORT LAB # 85-03-063
RECEIVED: 03/07/85 Results by Sample Continued From Above

SAMPLE ID 850982 FRACTION 02A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 03/06/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

CORPORATION

PAGE 12 Analytical Serv REPORT LAB # 85-03-063
RECEIVED: 03/07/85 Results by Sample

SAMPLE ID 850982 FRACTION 02B TEST CODE GC 602 NAME EPA Method 602/GC
Date & Time Collected 03/06/85 Category

DATA FILE D DATE INJECTED 03/11/85 ANALYST RAA VERIFIED BY JSG
CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT.
SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79).

CORPORATION

PAGE 13 Analytical Serv REPORT LAB # 85-03-063
RECEIVED: 03/07/85 Results by Sample

SAMPLE ID 850982 FRACTION 02F TEST CODE H1RCRA NAME RCRA Herbicides
Date & Time Collected 03/06/85 Category

DATE EXTRACTED 03/20/85 DATE INJECTED 04/02/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER HERBICIDES	RESULT	DET. LIMIT
2,4-D	ND	5			
2,4,5-TP (Silvex)	ND	5			
2,4,5-T	ND	5			

NOTES AND DEFINITIONS FOR THIS REPORT.
ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

SAMPLE ID 850982 FRACTION 02F TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 03/06/85 Category

DATE EXTRACTED 03/12/85 DATE INJECTED 03/19/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER PESTICIDES	RESULT	DET. LIMIT
Lindane	ND	0.1			
Endrin	ND	0.1			
Methoxychlor	ND	1.0			
Toxaphene	ND	1.0			
Chlordane	ND	1.0			

NOTES AND DEFINITIONS FOR THIS REPORT.

CORPORATION

PAGE 14 Analytical Serv REPORT LAB # 85-03-063
RECEIVED: 03/07/85 Results by Sample Continued From Above

SAMPLE ID 850982 FRACTION 02F TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 03/06/85 Category

ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

CORPORATION

PAGE 15 Analytical Serv REPORT LAB # 85-03-063
RECEIVED: 03/07/85 Results by Sample

SAMPLE ID 850983 FRACTION 03A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 03/06/85 Category

DATA FILE B DATE INJECTED 03/11/85 ANALYST RAA VERIFIED BY JSG
CONC. FACTOR INSTRUMENT b COMPOUNDS DETECTED 1

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Chloromethane	ND	1	Trichloroethene	3150
	Bromomethane	ND		Dibromochloromethane *	ND
	Vinyl Chloride	ND		1,1,2-Trichloroethane *	ND
	Chloroethane	ND		cis-1,3-Dichloropropene *	ND
	Methylene Chloride	ND		2-Chloroethylvinyl Ether	ND
	Trichlorofluoromethane	ND		Bromoform	ND
	1,1-Dichloroethene	ND		1,1,2,2-Tetrachloroethane #	ND
	1,1-Dichloroethane	ND		Tetrachloroethylene #	ND
	trans-1,2-Dichloroethene	ND		Chlorobenzene	ND
	Chloroform	ND		1,3-Dichlorobenzene	ND
	1,2-Dichloroethane	ND		1,2-Dichlorobenzene	ND
	1,1,1-Trichloroethane	ND		1,4-Dichlorobenzene	ND
	Carbon Tetrachloride	ND			
	Bromodichloromethane	ND			
	1,2-Dichloropropane	ND			
	trans-1,3-Dichloropropene	ND			

CORPORATION

PAGE 16 Analytical Serv REPORT LAB # 85-03-063
RECEIVED: 03/07/85 Results by Sample Continued From Above

SAMPLE ID 850983 FRACTION 03A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 03/06/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

CORPORATION

PAGE 17 Analytical Serv REPORT LAB # 85-03-063
RECEIVED: 03/07/85 Results by Sample

SAMPLE ID 850983 FRACTION 03B TEST CODE GC 602 NAME EPA Method 602/GC
Date & Time Collected 03/06/85 Category

DATA FILE D DATE INJECTED 03/11/85 ANALYST RAA VERIFIED BY JSG
CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT.
SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79).

CORPORATION

PAGE 18 Analytical Serv REPORT LAB # 85-03-063
RECEIVED: 03/07/85 Results by Sample

SAMPLE ID 850976 FRACTION 04G TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 03/06/85 Category

DATE ANALYZED 03/14/85 VERIFIED BY QMC

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	< .002	AS	Arsenic	< .060
BA	Barium	0.16	HG	Mercury	0.0002
CD	Cadmium	< .002	PB	Lead	< .080
CR	Chromium	< .005	SE	Selenium	< .080

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/ml unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

CORPORATION

PAGE 19 Analytical Serv REPORT LAB # 85-03-063
RECEIVED: 03/07/85 Results by Sample

SAMPLE ID 850976 FRACTION 04A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 03/06/85 Category

DATA FILE B DATE INJECTED 03/11/85 ANALYST RAA VERIFIED BY JSG
CONC. FACTOR INSTRUMENT b COMPOUNDS DETECTED 1

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Chloromethane	ND		Trichloroethene	ND
	Bromomethane	ND		Dibromochloromethane *	ND
	Vinyl Chloride	ND		1,1,2-Trichloroethane *	ND
	Chloroethane	ND		cis-1,3-Dichloropropene *	ND
	Methylene Chloride	ND		2-Chloroethylvinyl Ether	ND
1	Trichlorofluoromethane	4.4		Bromoform	ND
	1,1-Dichloroethene	ND		1,1,2,2-Tetrachloroethane #	ND
	1,1-Dichloroethane	ND		Tetrachloroethylene #	ND
	trans-1,2-Dichloroethene	ND		Chlorobenzene	ND
	Chloroform	ND		1,3-Dichlorobenzene	ND
	1,2-Dichloroethane	ND		1,2-Dichlorobenzene	ND
	1,1,1-Trichloroethane	ND		1,4-Dichlorobenzene	ND
	Carbon Tetrachloride	ND			
	Bromodichloromethane	ND			
	1,2-Dichloropropane	ND			
	trans-1,3-Dichloropropene	ND			

SAMPLE ID 850976 FRACTION 04A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 03/06/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

CORPORATION

PAGE 21 Analytical Serv REPORT LAB # 85-03-063
RECEIVED: 03/07/85 Results by Sample

SAMPLE ID 850976 FRACTION 04B TEST CODE GC 602 NAME EPA Method 602/GC
Date & Time Collected 03/06/85 Category

DATA FILE D DATE INJECTED 03/11/85 ANALYST RAA VERIFIED BY JSG
CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT.
SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79).

CORPORATION

PAGE 22 Analytical Serv REPORT LAB # 85-03-063
RECEIVED: 03/07/85 Results by Sample

SAMPLE ID 850976 FRACTION 04F TEST CODE H1RCRA NAME RCRA Herbicides
Date & Time Collected 03/06/85 Category

DATE EXTRACTED 03/20/85 DATE INJECTED 04/02/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER HERBICIDES	RESULT	DET. LIMIT
2,4-D	ND	5			
2,4,5-TP (Silvex)	ND	5			
2,4,5-T	ND	5			

NOTES AND DEFINITIONS FOR THIS REPORT.
ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

SAMPLE ID 850976 FRACTION 04F TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 03/06/85 Category

DATE EXTRACTED 03/12/85 DATE INJECTED 03/19/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER PESTICIDES	RESULT	DET. LIMIT
Lindane	ND	0.1			
Endrin	ND	0.1			
Methoxychlor	ND	1.0			
Toxaphene	ND	1.0			
Chlordane	ND	1.0			

NOTES AND DEFINITIONS FOR THIS REPORT.

SAMPLE ID 850976 FRACTION 04F TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 03/06/85 Category

ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

CORPORATION

PAGE 24 Analytical Serv REPORT LAB # 85-03-063
RECEIVED: 03/07/85 Results by Sample

SAMPLE ID 850977 FRACTION 05A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 03/06/85 Category

DATA FILE B DATE INJECTED 03/11/85 ANALYST RAA VERIFIED BY JSG
CONC. FACTOR INSTRUMENT b COMPOUNDS DETECTED 1

SCAN	COMPOUND	RESULT
	Chloromethane	ND
	Bromomethane	ND
	Vinyl Chloride	ND
	Chloroethane	ND
	Methylene Chloride	ND
1	Trichlorofluoromethane	5.7
	1,1-Dichloroethene	ND
	1,1-Dichloroethane	ND
	trans-1,2-Dichloroethene	ND
	Chloroform	ND
	1,2-Dichloroethane	ND
	1,1,1-Trichloroethane	ND
	Carbon Tetrachloride	ND
	Bromodichloromethane	ND
	1,2-Dichloropropane	ND
	trans-1,3-Dichloropropene	ND

SCAN	COMPOUND	RESULT
	Trichloroethene	ND
	Dibromochloromethane *	ND
	1,1,2-Trichloroethane *	ND
	cis-1,3-Dichloropropene *	ND
	2-Chloroethylvinyl Ether	ND
	Bromoform	ND
	1,1,2,2-Tetrachloroethane #	ND
	Tetrachloroethylene #	ND
	Chlorobenzene	ND
	1,3-Dichlorobenzene	ND
	1,2-Dichlorobenzene	ND
	1,4-Dichlorobenzene	ND

SAMPLE ID 850977 FRACTION 05A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 03/06/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

CORPORATION

PAGE 26 Analytical Serv REPORT LAB # 85-03-063
RECEIVED: 03/07/85 Results by Sample

SAMPLE ID 850977 FRACTION 05B TEST CODE GC 602 NAME EPA Method 602/GC
Date & Time Collected 03/06/85 Category

DATA FILE D DATE INJECTED 03/11/85 ANALYST RAA VERIFIED BY JSG
CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT.
SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79).

CORPORATION

PAGE 27 Analytical Serv REPORT LAB # 85-03-063
RECEIVED: 03/07/85 Results by Sample

SAMPLE ID 850978 FRACTION 06G TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 03/06/85 Category

DATE ANALYZED 03/14/85 VERIFIED BY QMC

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	<.002	AS	Arsenic	<.060
BA	Barium	0.16	HG	Mercury	<.0002
CD	Cadmium	<.002	PB	Lead	<.080
CR	Chromium	<.005	SE	Selenium	<.080

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/ml unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

CORPORATION

PAGE 28 Analytical Serv REPORT LAB # 85-03-063
RECEIVED: 03/07/85 Results by Sample

SAMPLE ID 850978 FRACTION 06A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 03/06/85 Category

DATA FILE B DATE INJECTED 03/11/85 ANALYST RAA VERIFIED BY JSG
CONC. FACTOR INSTRUMENT b COMPOUNDS DETECTED 1

SCAN	COMPOUND	RESULT
	Chloromethane	ND
	Bromomethane	ND
	Vinyl Chloride	ND
	Chloroethane	ND
	Methylene Chloride	ND
	Trichlorofluoromethane	ND
	1,1-Dichloroethene	ND
	1,1-Dichloroethane	ND
	trans-1,2-Dichloroethene	ND
	Chloroform	ND
	1,2-Dichloroethane	ND
	1,1,1-Trichloroethane	ND
	Carbon Tetrachloride	ND
	Bromodichloromethane	ND
	1,2-Dichloropropane	ND
	trans-1,3-Dichloropropene	ND
1	Trichloroethene	1.8
	Dibromochloromethane *	ND
	1,1,2-Trichloroethane *	ND
	cis-1,3-Dichloropropene *	ND
	2-Chloroethylvinyl Ether	ND
	Bromoform	ND
	1,1,2,2-Tetrachloroethane #	ND
	Tetrachloroethylene #	ND
	Chlorobenzene	ND
	1,3-Dichlorobenzene	ND
	1,2-Dichlorobenzene	ND
	1,4-Dichlorobenzene	ND

SAMPLE ID 850978 FRACTION 06A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 03/06/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

CORPORATION

PAGE 30 Analytical Serv REPORT LAB # 85-03-063
RECEIVED: 03/07/85 Results by Sample

SAMPLE ID 850978 FRACTION 06B TEST CODE GC 602 NAME EPA Method 602/GC
Date & Time Collected 03/06/85 Category

DATA FILE D DATE INJECTED 03/12/85 ANALYST CAC VERIFIED BY JSG
CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 1

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
1	Benzene	1.5		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT.
SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79).

SAMPLE ID 850978 FRACTION 06F TEST CODE H1RCRA NAME RCRA Herbicides
Date & Time Collected 03/06/85 Category

DATE EXTRACTED 03/21/85 DATE INJECTED 04/02/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER HERBICIDES	RESULT	DET. LIMIT
2,4-D	ND	5			
2,4,5-TP (Silvex)	ND	5			
2,4,5-T	ND	5			

NOTES AND DEFINITIONS FOR THIS REPORT.
ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

SAMPLE ID 850978 FRACTION 06F TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 03/06/85 Category

DATE EXTRACTED 03/12/85 DATE INJECTED 03/19/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER PESTICIDES	RESULT	DET. LIMIT
Lindane	ND	0.1			
Endrin	ND	0.1			
Methoxychlor	ND	1.0			
Toxaphene	ND	1.0			
Chlordane	ND	1.0			

NOTES AND DEFINITIONS FOR THIS REPORT.

CORPORATION

PAGE 32 Analytical Serv REPORT LAB # 85-03-063
RECEIVED: 03/07/85 Results by Sample Continued From Above

SAMPLE ID 850978 FRACTION 06F TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 03/06/85 Category

ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

CORPORATION

PAGE 33 Analytical Serv REPORT LAB # 85-03-063
RECEIVED: 03/07/85 Results by Sample

SAMPLE ID 850979 FRACTION 07A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 03/06/85 Category

DATA FILE B DATE INJECTED 03/11/85 ANALYST RAA VERIFIED BY JSG
CONC. FACTOR INSTRUMENT b COMPOUNDS DETECTED 1

SCAN	COMPOUND	RESULT
	Chloromethane	ND
	Bromomethane	ND
	Vinyl Chloride	ND
	Chloroethane	ND
	Methylene Chloride	ND
1	Trichlorofluoromethane	3.2
	1,1-Dichloroethene	ND
	1,1-Dichloroethane	ND
	trans-1,2-Dichloroethene	ND
	Chloroform	ND
	1,2-Dichloroethane	ND
	1,1,1-Trichloroethane	ND
	Carbon Tetrachloride	ND
	Bromodichloromethane	ND
	1,2-Dichloropropane	ND
	trans-1,3-Dichloropropene	ND

SCAN	COMPOUND	RESULT
	Trichloroethene	ND
	Dibromochloromethane *	ND
	1,1,2-Trichloroethane *	ND
	cis-1,3-Dichloropropene *	ND
	2-Chloroethylvinyl Ether	ND
	Bromoform	ND
	1,1,2,2-Tetrachloroethane #	ND
	Tetrachloroethylene #	ND
	Chlorobenzene	ND
	1,3-Dichlorobenzene	ND
	1,2-Dichlorobenzene	ND
	1,4-Dichlorobenzene	ND

CORPORATION

PAGE 34 Analytical Serv REPORT LAB # 85-03-063
RECEIVED: 03/07/85 Results by Sample Continued From Above

SAMPLE ID 850979 FRACTION 07A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 03/06/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 601. (Federal Register, 12/3/79).
*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

CORPORATION

PAGE 35 Analytical Serv REPORT LAB # 85-03-063
RECEIVED: 03/07/85 Results by Sample

SAMPLE ID 850979 FRACTION 07B TEST CODE GC 602 NAME EPA Method 602/GC
Date & Time Collected 03/06/85 Category

DATA FILE D DATE INJECTED 03/12/85 ANALYST CAC VERIFIED BY JSG
CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 1

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
1	Benzene	3.6		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT.
SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79).

SAMPLE ID 850979 FRACTION 07D TEST CODE H1RCRA NAME RCRA Herbicides
Date & Time Collected 03/06/85 Category

DATE EXTRACTED 03/21/85 DATE INJECTED 04/02/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER HERBICIDES	RESULT	DET. LIMIT
2,4-D	ND	5			
2,4,5-TP (Silvex)	ND	5			
2,4,5-T	ND	5			

NOTES AND DEFINITIONS FOR THIS REPORT.
ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

SAMPLE ID 850979 FRACTION 07D TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 03/06/85 Category

DATE EXTRACTED 03/12/85 DATE INJECTED 03/19/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER PESTICIDES	RESULT	DET. LIMIT
Lindane	ND	0.1			
Endrin	ND	0.1			
Methoxychlor	ND	1.0			
Toxaphene	ND	1.0			
Chlordane	ND	1.0			

NOTES AND DEFINITIONS FOR THIS REPORT.

CORPORATION

PAGE 37 Analytical Serv REPORT LAB # 85-03-063
RECEIVED: 03/07/85 Results by Sample Continued From Above

SAMPLE ID 850979 FRACTION 07D TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 03/06/85 Category

ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

CORPORATION

PAGE 1 Analytical Serv REPORT LAB # 85-03-064

RECEIVED 03/07/85 04/12/85 12:03:26

REPORT TO: Radian, PI 4, Austin

ATTEN: Larry French

CLIENT: CARSWELL DOE SAMPLES: 3

COMPANY: Carswell AFB

FACILITY:

PREPARED BY: Radian Analytical Services, 8501 MoPac Blvd, P.O. Box 9948, Austin, Texas 78766

ATTEN:

PHONE: (512) 454-4797

CERTIFIED BY

CONTACT CONOVER

WORK ID: water site 15

TAKEN: PAW

TRANS: Fed Ex

TYPE:

P O #: 214-114-06-44

INVOICE: under separate cover

Footnotes and Comments

* Indicates a value less than 5 times the detection limit. Potential error for such low values ranges between 50 and 100%.

@ Indicates that spike recovery for this analysis on the specific matrix was not within acceptable limits indicating an interferent present.

SAMPLE IDENTIFICATION

01 850973
02 850974
03 850975

Analytical Serv TEST CODES and NAMES used on this report

EX 509	Extraction only-509B Herb.
EX 608	Extraction only - 608
H1RCRA	RCRA Herbicides
P1RCRA	RCRA Pesticides
TOC	Total Organic Carbon

CORPORATION

PAGE 2 Analytical Serv REPORT LAB # 85-03-064

RECEIVED: 03/07/85 RESULTS BY TEST

TEST CODE default units	Sample 01 (entered units)	Sample 02 (entered units)	Sample 03 (entered units)
EX_504 date complete	03/14/85	03/14/85	
EX_608 date complete	03/12/85	03/12/85	
TOC mg/L	2	5	4

CORPORATION

PAGE 3 Analytical Serv REPORT LAB # 85-03-064
RECEIVED: 03/07/85 Results by Sample

SAMPLE ID 850973 FRACTION 01B TEST CODE H1RCRA NAME RCRA Herbicides
Date & Time Collected 03/06/85 Category

DATE EXTRACTED 03/14/85 DATE INJECTED 04/02/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER HERBICIDES	RESULT	DET. LIMIT
2,4-D	ND	5			
2,4,5-TP (Silvex)	ND	5			
2,4,5-T	ND	5			

NOTES AND DEFINITIONS FOR THIS REPORT.
ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

SAMPLE ID 850973 FRACTION 01B TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 03/06/85 Category

DATE EXTRACTED 03/12/85 DATE INJECTED 03/19/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER PESTICIDES	RESULT	DET. LIMIT
Lindane	ND	0.1			
Endrin	ND	0.1			
Methoxychlor	ND	1.0			
Toxaphene	ND	1.0			
Chlordane	ND	1.0			

NOTES AND DEFINITIONS FOR THIS REPORT

SAMPLE ID 850973 FRACTION 01B TEST CODE PIRCRA NAME RCRA Pesticides
Date & Time Collected 03/06/85 Category

ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

SAMPLE ID 850974 FRACTION 02B TEST CODE HIRCRA NAME RCRA Herbicides
Date & Time Collected 03/06/85 Category

DATE EXTRACTED 03/14/85 DATE INJECTED 04/02/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER HERBICIDES	RESULT	DET. LIMIT
2,4-D	ND	5			
2,4,5-TP (Silvex)	ND	5			
2,4,5-T	ND	5			

NOTES AND DEFINITIONS FOR THIS REPORT.
ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

SAMPLE ID 850974 FRACTION 02B TEST CODE PIRCRA NAME RCRA Pesticides
Date & Time Collected 03/06/85 Category

DATE EXTRACTED 03/12/85 DATE INJECTED 03/19/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER PESTICIDES	RESULT	DET. LIMIT
Lindane	ND	0.1			
Endrin	ND	0.1			
Methoxychlor	ND	1.0			

CORPORATION

PAGE 5 Analytical Serv REPORT LAB # 85-03-064
RECEIVED: 03/07/85 Results by Sample Continued From Above

SAMPLE ID 850974 FRACTION 02B TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 03/06/85 Category

Toxaphene	ND	1.0
Chlordane	ND	1.0

NOTES AND DEFINITIONS FOR THIS REPORT.
ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

CORPORATION

PAGE 1 Analytical Serv REPORT LAB # 85-03-081

RECEIVED: 03/08/85 04/22/85 14:21:11

REPORT TO: Radian
Bl. 4
Austin

ATTEN: Larry French

CLIENT: CARSWELL DO6 SAMPLES: 9
COMPANY: Carswell AFB
FACILITY:

WORK ID: water sites 5, 10, 12
TAKEN: PAW
TRANS: Fed Ex
TYPE:
P.O. #: 214-114-06-44
INVOICE: under separate cover

PREPARED BY: Radian Analytical Services
8501 MoPac Blvd.
P.O. Box 9948
Austin, Texas 78766

ATTEN:
PHONE: (512) 454-4797

CERTIFIED BY

CONTACT CONOVER

Note: 2nd column confirmation performed for EPA 601 (splits 01 thru 09). Detection limit for EPA 602 was 50 ug/L for splits 01 thru 03.

Footnotes and Comments

* Indicates a value less than 5 times the detection limit. Potential error for such low values ranges between 50 and 100%.

@ Indicates that spike recovery for this analysis on the specific matrix was not within acceptable limits indicating an interferent present.

SAMPLE IDENTIFICATION

01	850980
02	850984
03	850985
04	850986
05	850987
06	850988
07	850989
08	850990
09	850991

Analytical Serv TEST CODES and NAMES used on this report

EP MET	RCRA Metals
EX 509	Extraction only-509B Herb.
EX 608	Extraction only - 608
GC 601	EPA Method 601/GC
GC 602	EPA Method 602/GC
H1RCRA	RCRA Herbicides
ONG IR	Oil and Grease, Infrared
P1RCRA	RCRA Pesticides
PHEN A	Total Phenolics
TOC	Total Organic Carbon
TOX 1	TOX Single Analysis

CORPORATION

PAGE 2 Analytical Serv REPORT LAB # 85-03-081

RECEIVED: 03/08/85 RESULTS BY TEST

TEST CODE default units	Sample 01 (entered units)	Sample 02 (entered units)	Sample 03 (entered units)	Sample 04 (entered units)	Sample 05 (entered units)
EX_509 date complete	03/14/85				
EX_608 date complete	03/13/85				
ONG_IR mg/L	<1	<1		<1	<1
PHEN_A mg/L	<.005			0.006	
TOC mg/L	2	<1		<1	
TOX_1 mg/L	1.0	1.4	1.4	0.11	0.10

TEST CODE default units	Sample 06 (entered units)	Sample 08 (entered units)
ONG_IR mg/L	<1	<1
PHEN_A mg/L	<.005	<.005
TOC mg/L	<1	<1
TOX_1 mg/L	0.38	0.01

CORPORATION

PAGE 3 Analytical Serv REPORT LAB # 85-03-081
RECEIVED: 03/08/85 Results by Sample

SAMPLE ID 850980 FRACTION 01F TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 03/07/85 Category

DATE ANALYZED 03/14/85 VERIFIED BY GMC

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	<.002	AS	Arsenic	<.060
BA	Barium	0.13	HG	Mercury	<.0002
CD	Cadmium	<.002	PB	Lead	<.080
CR	Chromium	<.005	SE	Selenium	<.080

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/ml unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

CORPORATION

PAGE 4 Analytical Serv REPORT LAB # 85-03-081
RECEIVED: 03/08/85 Results by Sample

SAMPLE ID 850980 FRACTION 01A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 03/07/85 Category

DATA FILE Q DATE INJECTED 03/11/85 ANALYST MSF VERIFIED BY JSG
CONC. FACTOR INSTRUMENT q COMPOUNDS DETECTED 1

SCAN	COMPOUND	RESULT
	Chloromethane	ND
	Bromomethane	ND
	Vinyl Chloride	ND
	Chloroethane	ND
	Methylene Chloride	ND
	Trichlorofluoromethane	ND
	1,1-Dichloroethene	ND
	1,1-Dichloroethane	ND
	trans-1,2-Dichloroethene	ND
	Chloroform	ND
	1,2-Dichloroethane	ND
	1,1,1-Trichloroethane	ND
	Carbon Tetrachloride	ND
	Bromodichloromethane	ND
	1,2-Dichloropropane	ND
	trans-1,3-Dichloropropene	ND

SCAN	COMPOUND	RESULT
1	Trichloroethene	2330
	Dibromochloromethane *	ND
	1,1,2-Trichloroethane *	ND
	cis-1,3-Dichloropropene *	ND
	2-Chloroethylvinyl Ether	ND
	Bromoform	ND
	1,1,2,2-Tetrachloroethane #	ND
	Tetrachloroethylene #	ND
	Chlorobenzene	ND
	1,3-Dichlorobenzene	ND
	1,2-Dichlorobenzene	ND
	1,4-Dichlorobenzene	ND

CORPORATION

PAGE 5 Analytical Serv REPORT LAB # 85-03-081
RECEIVED: 03/08/85 Results by Sample Continued From Above

SAMPLE ID 850980 FRACTION 01A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 03/07/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

CORPORATION

PAGE 6 Analytical Serv REPORT LAB # 85-03-081
RECEIVED: 03/08/85 Results by Sample

SAMPLE ID 850980 FRACTION 01B TEST CODE GC 602 NAME EPA Method 602/GC
Date & Time Collected 03/07/85 Category

DATA FILE D DATE INJECTED 03/12/85 ANALYST CAC VERIFIED BY JSG
CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT.
SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79).

SAMPLE ID 850980 FRACTION 01G TEST CODE H1RCRA NAME RCRA Herbicides
Date & Time Collected 03/07/85 Category

DATE EXTRACTED 03/14/85 DATE INJECTED 04/02/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER HERBICIDES	RESULT	DET. LIMIT
2,4-D	ND	5			
2,4,5-TP (Silvex)	ND	5			
2,4,5-T	ND	5			

NOTES AND DEFINITIONS FOR THIS REPORT.
ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

SAMPLE ID 850980 FRACTION 01G TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 03/07/85 Category

DATE EXTRACTED 03/13/85 DATE INJECTED 03/20/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER PESTICIDES	RESULT	DET. LIMIT
Lindane	ND	0.1			
Endrin	ND	0.1			
Methoxychlor	ND	1.0			
Toxaphene	ND	1.0			
Chlordane	ND	1.0			

NOTES AND DEFINITIONS FOR THIS REPORT.

CORPORATION

PAGE 8 Analytical Serv REPORT LAB # 85-03-081
RECEIVED: 03/08/85 Results by Sample Continued From Above

SAMPLE ID 850980 FRACTION 01G TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 03/07/85 Category

ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

CORPORATION

PAGE 9 Analytical Serv REPORT LAB # 85-03-081
RECEIVED: 03/08/85 Results by Sample

SAMPLE ID 850984 FRACTION 02A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 03/07/85 Category

DATA FILE G DATE INJECTED 03/11/85 ANALYST MSF VERIFIED BY JSG
CONC. FACTOR INSTRUMENT g COMPOUNDS DETECTED 1

SCAN	COMPOUND	RESULT
	Chloromethane	ND
	Bromomethane	ND
	Vinyl Chloride	ND
	Chloroethane	ND
	Methylene Chloride	ND
	Trichlorofluoromethane	ND
	1,1-Dichloroethene	ND
	1,1-Dichloroethane	ND
	trans-1,2-Dichloroethene	ND
	Chloroform	ND
	1,2-Dichloroethane	ND
	1,1,1-Trichloroethane	ND
	Carbon Tetrachloride	ND
	Bromodichloromethane	ND
	1,2-Dichloropropane	ND
	trans-1,3-Dichloropropene	ND

SCAN	COMPOUND	RESULT
1	Trichloroethene	3550
	Dibromochloromethane *	ND
	1,1,2-Trichloroethane *	ND
	cis-1,3-Dichloropropene *	ND
	2-Chloroethylvinyl Ether	ND
	Bromoform	ND
	1,1,2,2-Tetrachloroethane #	ND
	Tetrachloroethylene #	ND
	Chlorobenzene	ND
	1,3-Dichlorobenzene	ND
	1,2-Dichlorobenzene	ND
	1,4-Dichlorobenzene	ND

CORPORATION

PAGE 10 Analytical Serv REPORT LAB # 85-03-081
RECEIVED: 03/08/85 Results by Sample Continued From Above

SAMPLE ID 850984 FRACTION 02A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 03/07/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

CORPORATION

PAGE 11 Analytical Serv REPORT LAB # 85-03-081
RECEIVED: 03/08/85 Results by Sample

SAMPLE ID 850984 FRACTION 02B TEST CODE GC 602 NAME EPA Method 602/GC
Date & Time Collected 03/07/85 Category

DATA FILE D DATE INJECTED 03/12/85 ANALYST CAC VERIFIED BY JSG
CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT.
SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79).

CORPORATION

PAGE 12 Analytical Serv REPORT LAB # 85-03-081
RECEIVED: 03/08/85 Results by Sample

SAMPLE ID 850985 FRACTION 03A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 03/07/85 Category

DATA FILE G DATE INJECTED 03/11/85 ANALYST MSF VERIFIED BY JSG
CONC. FACTOR INSTRUMENT g COMPOUNDS DETECTED 1

SCAN	COMPOUND	RESULT
	Chloromethane	ND
	Bromomethane	ND
	Vinyl Chloride	ND
	Chloroethane	ND
	Methylene Chloride	ND
	Trichlorofluoromethane	ND
	1,1-Dichloroethene	ND
	1,1-Dichloroethane	ND
	trans-1,2-Dichloroethene	ND
	Chloroform	ND
	1,2-Dichloroethane	ND
	1,1,1-Trichloroethane	ND
	Carbon Tetrachloride	ND
	Bromodichloromethane	ND
	1,2-Dichloropropane	ND
	trans-1,3-Dichloropropene	ND

SCAN	COMPOUND	RESULT
1	Trichloroethene	3590
	Dibromochloromethane *	ND
	1,1,2-Trichloroethane *	ND
	cis-1,3-Dichloropropene *	ND
	2-Chloroethylvinyl Ether	ND
	Bromoform	ND
	1,1,2,2-Tetrachloroethane #	ND
	Tetrachloroethylene #	ND
	Chlorobenzene	ND
	1,3-Dichlorobenzene	ND
	1,2-Dichlorobenzene	ND
	1,4-Dichlorobenzene	ND

CORPORATION

PAGE 13 Analytical Serv REPORT LAB # 85-03-081
RECEIVED: 03/08/85 Results by Sample Continued From Above

SAMPLE ID 850985 FRACTION 03A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 03/07/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

CORPORATION

PAGE 14 Analytical Serv REPORT LAB # 85-03-081
RECEIVED: 03/08/85 Results by Sample

SAMPLE ID 850985 FRACTION 03B TEST CODE GC 602 NAME EPA Method 602/GC
Date & Time Collected 03/07/85 Category

DATA FILE D DATE INJECTED 03/12/85 ANALYST CAC VERIFIED BY JSG
CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT.
SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 602. (Federal Register, 12/3/79).

CORPORATION

PAGE 15 Analytical Serv REPORT LAB # 85-03-081
RECEIVED: 03/08/85 Results by Sample

SAMPLE ID 850986 FRACTION 04F TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 03/07/85 Category

DATE ANALYZED 03/14/85 VERIFIED BY GMC

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	<.002	AS	Arsenic	<.060
BA	Barium	0.18	HG	Mercury	<.0002
CD	Cadmium	<.002	PB	Lead	<.080
CR	Chromium	<.005	SE	Selenium	<.080

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/ml unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

CORPORATION

PAGE 16 Analytical Serv REPORT LAB # 85-03-081
RECEIVED: 03/08/85 Results by Sample

SAMPLE ID 850986 FRACTION 04A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 03/07/85 Category

DATA FILE B DATE INJECTED 03/12/85 ANALYST CAC VERIFIED BY JSG
CONC. FACTOR INSTRUMENT b COMPOUNDS DETECTED 6

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Chloromethane	ND	4	Trichloroethene	5.8
	Bromomethane	ND		Dibromochloromethane *	ND
	Vinyl Chloride	ND		1,1,2-Trichloroethane *	ND
	Chloroethane	ND		cis-1,3-Dichloropropene *	ND
	Methylene Chloride	ND		2-Chloroethylvinyl Ether	ND
	Trichlorofluoromethane	ND		Bromoform	ND
1	1,1-Dichloroethene	2.5		1,1,2,2-Tetrachloroethane #	ND
2	1,1-Dichloroethane	5.9	5	Tetrachloroethylene #	8.6
	trans-1,2-Dichloroethene	ND		Chlorobenzene	ND
	Chloroform	ND		1,3-Dichlorobenzene	ND
	1,2-Dichloroethane	ND	6	1,2-Dichlorobenzene	4.1
3	1,1,1-Trichloroethane	2.9		1,4-Dichlorobenzene	ND
	Carbon Tetrachloride	ND			
	Bromodichloromethane	ND			
	1,2-Dichloropropane	ND			
	trans-1,3-Dichloropropene	ND			

CORPORATION

PAGE 17 Analytical Serv REPORT LAB # 85-03-081
RECEIVED: 03/08/85 Results by Sample Continued From Above

SAMPLE ID 850986 FRACTION 04A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 03/07/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

CORPORATION

PAGE 18 Analytical Serv REPORT LAB # 85-03-081
RECEIVED: 03/08/85 Results by Sample

SAMPLE ID 850986 FRACTION 04B TEST CODE GC 602 NAME EPA Method 602/GC
Date & Time Collected 03/07/85 Category

DATA FILE D DATE INJECTED 03/12/85 ANALYST MCL VERIFIED BY JSG
CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 1

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND	1	1,4-Dichlorobenzene	4.1

NOTES AND DEFINITIONS FOR THIS REPORT.
SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79).

CORPORATION

PAGE 19 Analytical Serv REPORT LAB # 85-03-081
RECEIVED: 03/08/85 Results by Sample

SAMPLE ID 850987 FRACTION 05A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 03/07/85 Category

DATA FILE B DATE INJECTED 03/12/85 ANALYST CAC VERIFIED BY JSG
CONC. FACTOR INSTRUMENT b COMPOUNDS DETECTED 6

SCAN	COMPOUND	RESULT
	Chloromethane	ND
	Bromomethane	ND
	Vinyl Chloride	ND
	Chloroethane	ND
	Methylene Chloride	ND
	Trichlorofluoromethane	ND
1	1,1-Dichloroethene	2.5
2	1,1-Dichloroethane	5.8
	trans-1,2-Dichloroethene	ND
	Chloroform	ND
	1,2-Dichloroethane	ND
3	1,1,1-Trichloroethane	2.9
	Carbon Tetrachloride	ND
	Bromodichloromethane	ND
	1,2-Dichloropropane	ND
	trans-1,3-Dichloropropene	ND

SCAN	COMPOUND	RESULT
4	Trichloroethene	5.6
	Dibromochloromethane *	ND
	1,1,2-Trichloroethane *	ND
	cis-1,3-Dichloropropene *	ND
	2-Chloroethylvinyl Ether	ND
	Bromoform	ND
	1,1,2,2-Tetrachloroethane #	ND
5	Tetrachloroethylene #	8.1
	Chlorobenzene	ND
	1,3-Dichlorobenzene	ND
6	1,2-Dichlorobenzene	3.9
	1,4-Dichlorobenzene	ND

CORPORATION

PAGE 20 Analytical Serv REPORT LAB # 85-03-081
RECEIVED: 03/08/85 Results by Sample Continued From Above

SAMPLE ID 850987 FRACTION 05A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 03/07/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

CORPORATION

PAGE 21 Analytical Serv REPORT LAB # 85-03-081
RECEIVED: 03/08/85 Results by Sample

SAMPLE ID 850987 FRACTION 05B TEST CODE GC 602 NAME EPA Method 602/GC
Date & Time Collected 03/07/85 Category

DATA FILE D DATE INJECTED 03/12/85 ANALYST MCL VERIFIED BY JSG
CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 2

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND	1	1,2-Dichlorobenzene	3.9
	Ethyl Benzene	ND	2	1,4-Dichlorobenzene	3.0

NOTES AND DEFINITIONS FOR THIS REPORT.
SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79).

CORPORATION

PAGE 22 Analytical Serv REPORT LAB # 85-03-081

RECEIVED: 03/08/85 Results by Sample

SAMPLE ID 850988 FRACTION 06F TEST CODE EP MET NAME RCRA Metals

Date & Time Collected 03/07/85 Category

DATE ANALYZED 03/14/85 VERIFIED BY GMC

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	<.002	AS	Arsenic	<.060
BA	Barium	0.16	HG	Mercury	<.0002
CD	Cadmium	<.002	PB	Lead	<.080
CR	Chromium	<.005	SE	Selenium	<.080

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/ml unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

CORPORATION

PAGE 23 Analytical Serv REPORT LAB # 85-03-081

RECEIVED: 03/08/85 Results by Sample

SAMPLE ID 850988 FRACTION 06A TEST CODE GC 601 NAME EPA Method 601/GC

Date & Time Collected 03/07/85 Category

DATA FILE Q DATE INJECTED 03/11/85 ANALYST RAA VERIFIED BY JSG

CONC. FACTOR INSTRUMENT q COMPOUNDS DETECTED 2

SCAN	COMPOUND	RESULT
	Chloromethane	ND
	Bromomethane	ND
	Vinyl Chloride	ND
	Chloroethane	ND
	Methylene Chloride	ND
	Trichlorofluoromethane	ND
	1,1-Dichloroethene	ND
	1,1-Dichloroethane	ND
	trans-1,2-Dichloroethene	ND
	Chloroform	ND
	1,2-Dichloroethane	ND
	1,1,1-Trichloroethane	ND
	Carbon Tetrachloride	ND
	Bromodichloromethane	ND
	1,2-Dichloropropane	ND
	trans-1,3-Dichloropropene	ND

SCAN	COMPOUND	RESULT
1	Trichloroethene	187
	Dibromochloromethane *	ND
	1,1,2-Trichloroethane *	ND
	cis-1,3-Dichloropropene *	ND
	2-Chloroethylvinyl Ether	ND
	Bromoform	ND
	1,1,2,2-Tetrachloroethane #	ND
2	Tetrachloroethylene #	87.0
	Chlorobenzene	ND
	1,3-Dichlorobenzene	ND
	1,2-Dichlorobenzene	ND
	1,4-Dichlorobenzene	ND

SAMPLE ID 850988 FRACTION 06A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 03/07/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

CORPORATION

PAGE 25 Analytical Serv REPORT LAB # 85-03-081
RECEIVED: 03/08/85 Results by Sample

SAMPLE ID 850988 FRACTION 06B TEST CODE GC 602 NAME EPA Method 602/GC
Date & Time Collected 03/07/85 Category

DATA FILE D DATE INJECTED 03/12/85 ANALYST MCL VERIFIED BY JSG
CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 1

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND	1	1,4-Dichlorobenzene	2.3

NOTES AND DEFINITIONS FOR THIS REPORT.
SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79).

CORPORATION

PAGE 26 Analytical Serv REPORT LAB # 85-03-081
RECEIVED: 03/08/85 Results by Sample

SAMPLE ID 850989 FRACTION 07A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 03/07/85 Category

DATA FILE G DATE INJECTED 03/11/85 ANALYST RAA VERIFIED BY JSG
CONC. FACTOR INSTRUMENT g COMPOUNDS DETECTED 2

SCAN	COMPOUND	RESULT
	Chloromethane	ND
	Bromomethane	ND
	Vinyl Chloride	ND
	Chloroethane	ND
	Methylene Chloride	ND
	Trichlorofluoromethane	ND
	1,1-Dichloroethene	ND
	1,1-Dichloroethane	ND
	trans-1,2-Dichloroethene	ND
	Chloroform	ND
	1,2-Dichloroethane	ND
	1,1,1-Trichloroethane	ND
	Carbon Tetrachloride	ND
	Bromodichloromethane	ND
	1,2-Dichloropropane	ND
	trans-1,3-Dichloropropene	ND
1	Trichloroethene	193
	Dibromochloromethane *	ND
	1,1,2-Trichloroethane *	ND
	cis-1,3-Dichloropropene *	ND
	2-Chloroethylvinyl Ether	ND
	Bromoform	ND
	1,1,2,2-Tetrachloroethane #	ND
2	Tetrachloroethylene #	92.2
	Chlorobenzene	ND
	1,3-Dichlorobenzene	ND
	1,2-Dichlorobenzene	ND
	1,4-Dichlorobenzene	ND

CORPORATION

PAGE 27 Analytical Serv REPORT LAB # 85-03-081
RECEIVED: 03/08/85 Results by Sample Continued From Above

SAMPLE ID 850989 FRACTION 07A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 03/07/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

CORPORATION

PAGE 28 Analytical Serv REPORT LAB # 85-03-081
RECEIVED: 03/08/85 Results by Sample

SAMPLE ID 850989 FRACTION 07B TEST CODE GC 602 NAME EPA Method 602/GC
Date & Time Collected 03/07/85 Category

DATA FILE D DATE INJECTED 03/12/85 ANALYST RAA VERIFIED BY JSG
CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT.
SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79).

CORPORATION

PAGE 29 Analytical Serv REPORT LAB # 85-03-081
RECEIVED: 03/08/85 Results by Sample

SAMPLE ID 850990 FRACTION 08F TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 03/07/85 Category

DATE ANALYZED 03/14/85 VERIFIED BY QMC

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	< .002	AS	Arsenic	< .060
BA	Barium	0.11	HG	Mercury	< .0002
CD	Cadmium	< .002	PB	Lead	< .080
CR	Chromium	< .005	SE	Selenium	< .080

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/ml unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

CORPORATION

PAGE 30 Analytical Serv REPORT LAB # 85-03-081
RECEIVED: 03/08/85 Results by Sample

SAMPLE ID 850990 FRACTION 08A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 03/07/85 Category

DATA FILE B DATE INJECTED 03/12/85 ANALYST CAC VERIFIED BY JSG
CONC. FACTOR INSTRUMENT b COMPOUNDS DETECTED 4

SCAN	COMPOUND	RESULT
	Chloromethane	ND
	Bromomethane	ND
	Vinyl Chloride	ND
	Chloroethane	ND
	Methylene Chloride	ND
1	Trichlorofluoromethane	3.8
	1,1-Dichloroethene	ND
	1,1-Dichloroethane	ND
	trans-1,2-Dichloroethene	ND
	Chloroform	ND
	1,2-Dichloroethane	ND
2	1,1,1-Trichloroethane	2.6
	Carbon Tetrachloride	ND
	Bromodichloromethane	ND
	1,2-Dichloropropane	ND
	trans-1,3-Dichloropropene	ND

SCAN	COMPOUND	RESULT
3	Trichloroethene	2.2
	Dibromochloromethane *	ND
	1,1,2-Trichloroethane *	ND
	cis-1,3-Dichloropropene *	ND
	2-Chloroethylvinyl Ether	ND
	Bromoform	ND
	1,1,2,2-Tetrachloroethane #	ND
4	Tetrachloroethylene #	2.6
	Chlorobenzene	ND
	1,3-Dichlorobenzene	ND
	1,2-Dichlorobenzene	ND
	1,4-Dichlorobenzene	ND

CORPORATION

PAGE 31 Analytical Serv REPORT LAB # 85-03-081
RECEIVED: 03/08/85 Results by Sample Continued From Above

SAMPLE ID 850990 FRACTION 08A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 03/07/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

CORPORATION

PAGE 32 Analytical Serv REPORT LAB # 85-03-081
RECEIVED: 03/08/85 Results by Sample

SAMPLE ID 850990 FRACTION 08B TEST CODE GC 602 NAME EPA Method 602/GC
Date & Time Collected 03/07/85 Category

DATA FILE D DATE INJECTED 03/12/85 ANALYST RAA VERIFIED BY JSG
CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT.
SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79).

CORPORATION

PAGE 33 Analytical Serv REPORT LAB # 85-03-081
RECEIVED: 03/08/85 Results by Sample

SAMPLE ID 850991 FRACTION 09A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 03/07/85 Category

DATA FILE B DATE INJECTED 03/13/85 ANALYST MCL VERIFIED BY JSG
CONC. FACTOR INSTRUMENT b COMPOUNDS DETECTED 4

SCAN	COMPOUND	RESULT
	Chloromethane	ND
	Bromomethane	ND
	Vinyl Chloride	ND
	Chloroethane	ND
	Methylene Chloride	ND
1	Trichlorofluoromethane	4.1
	1,1-Dichloroethene	ND
	1,1-Dichloroethane	ND
	trans-1,2-Dichloroethene	ND
	Chloroform	ND
	1,2-Dichloroethane	ND
2	1,1,1-Trichloroethane	2.6
	Carbon Tetrachloride	ND
	Bromodichloromethane	ND
	1,2-Dichloropropane	ND
	trans-1,3-Dichloropropene	ND
3	Trichloroethene	2.2
	Dibromochloromethane *	ND
	1,1,2-Trichloroethane *	ND
	cis-1,3-Dichloropropene *	ND
	2-Chloroethylvinyl Ether	ND
	Bromoform	ND
	1,1,2,2-Tetrachloroethane #	ND
4	Tetrachloroethylene #	2.5
	Chlorobenzene	ND
	1,3-Dichlorobenzene	ND
	1,2-Dichlorobenzene	ND
	1,4-Dichlorobenzene	ND

CORPORATION

PAGE 34 Analytical Serv REPORT LAB # 85-03-081
RECEIVED: 03/08/85 Results by Sample Continued From Above

SAMPLE ID 850991 FRACTION 09A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 03/07/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

CORPORATION

PAGE 35 Analytical Serv REPORT LAB # 85-03-081
RECEIVED: 03/08/85 Results by Sample

SAMPLE ID 850991 FRACTION 09B TEST CODE GC 602 NAME EPA Method 602/GC
Date & Time Collected 03/07/85 Category

DATA FILE D DATE INJECTED 03/12/85 ANALYST RAA VERIFIED BY JSG
CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT.
SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79).

CORPORATION

PAGE 1 Analytical Serv REPORT LAB # 85-03-082

RECEIVED: 03/08/85 04/26/85 14:56:45

REPORT TO: Radian
Bl. 4
Austin

ATTEN: Larry French

CLIENT: CARSWELL D06 SAMPLES: 3
COMPANY: Carswell AFB
FACILITY:

PREPARED BY: Radian Analytical Services
8501 MoPac Blvd.
P.O. Box 9948
Austin, Texas 78766

ATTEN:
PHONE: (512) 454-4797

CERTIFIED BY

CONTACT CONOVER

WORK ID: water sites 15, P1, P2
TAKEN: PAW
TRANS: Fed Ex
TYPE:
P.O. #: 214-114-06-44
INVOICE: under separate cover

Footnotes and Comments

* Indicates a value less than 5 times the detection limit. Potential error for such low values ranges between 50 and 100%.

@ Indicates that spike recovery for this analysis on the specific matrix was not within acceptable limits indicating an interferent present.

SAMPLE IDENTIFICATION

01 850975
02 850992
03 850993

Analytical Serv TEST CODES and NAMES used on this report

EP MET	RCRA Metals
EX 509	Extraction only-509B Herb.
EX 608	Extraction only - 608
GC 601	EPA Method 601/GC
GC 602	EPA Method 602/GC
H1RCRA	RCRA Herbicides
ONG IR	Oil and Grease, Infrared
P1RCRA	RCRA Pesticides
PHEN A	Total Phenolics
TOC	Total Organic Carbon
TOX 1	TOX Single Analysis

CORPORATION

PAGE 2 Analytical Serv REPORT LAB # 85-03-082

RECEIVED: 03/08/85 RESULTS BY TEST

TEST CODE default units	Sample 01 (entered units)	Sample 02 (entered units)	Sample 03 (entered units)
EX_509 date complete	03/21/85	03/21/85	03/21/85
EX_608 date complete	03/13/85	03/13/85	03/13/85
ONG_IR mg/L		<1	<1
PHEN_A mg/L		<.005	<.005
TOC mg/L		<1	<1
TOX_1 mg/L		<.01	<.01

CORPORATION

PAGE 3 Analytical Serv REPORT LAB # 85-03-082
RECEIVED: 03/08/85
Results by Sample

SAMPLE ID 850975 FRACTION Q1A TEST CODE H1RCRA NAME RCRA Herbicides
Date & Time Collected 03/07/85 Category

DATE EXTRACTED 03/01/85 DATE INJECTED 04/02/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER HERBICIDES	RESULT	DET. LIMIT
2,4-D	ND	5			
2,4,5-TP (Silvex)	ND	5			
2,4,5-T	ND	5			

NOTES AND DEFINITIONS FOR THIS REPORT.
ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

SAMPLE ID 850975 FRACTION Q1A TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 03/07/85 Category

DATE EXTRACTED 03/13/85 DATE INJECTED 03/20/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER PESTICIDES	RESULT	DET. LIMIT
Lindane	ND	0.1			
Endrin	ND	0.1			
Methoxychlor	ND	1.0			
Toxaphene	ND	1.0			
Chlordane	ND	1.0			

NOTES AND DEFINITIONS FOR THIS REPORT.

CORPORATION

PAGE 4 Analytical Serv REPORT LAB # 85-03-082
RECEIVED: 03/08/85 Results by Sample Continued From Above

SAMPLE ID 850975 FRACTION 01A TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 03/07/85 Category

ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

CORPORATION

PAGE 5 Analytical Serv REPORT LAB # 85-03-082
RECEIVED: 03/08/85 Results by Sample

SAMPLE ID 850992 FRACTION 02G TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 03/07/85 Category

DATE ANALYZED 03/14/85 VERIFIED BY GMC

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	<.002	AS	Arsenic	<.060
BA	Barium	0.023	HG	Mercury	0.0004
CD	Cadmium	<.002	PB	Lead	<.080
CR	Chromium	<.005	SE	Selenium	<.080

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/ml unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

CORPORATION

PAGE 6 Analytical Serv REPORT LAB # 85-03-082
RECEIVED: 03/08/85 Results by Sample

SAMPLE ID 850992 FRACTION 02B TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 03/07/85 Category

DATA FILE B DATE INJECTED 03/13/85 ANALYST MCL VERIFIED BY JSG
CONC. FACTOR INSTRUMENT b COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT
	Chloromethane	ND
	Bromomethane	ND
	Vinyl Chloride	ND
	Chloroethane	ND
	Methylene Chloride	ND
	Trichlorofluoromethane	ND
	1,1-Dichloroethene	ND
	1,1-Dichloroethane	ND
	trans-1,2-Dichloroethene	ND
	Chloroform	ND
	1,2-Dichloroethane	ND
	1,1,1-Trichloroethane	ND
	Carbon Tetrachloride	ND
	Bromodichloromethane	ND
	1,2-Dichloropropane	ND
	trans-1,3-Dichloropropene	ND

SCAN	COMPOUND	RESULT
	Trichloroethene	ND
	Dibromochloromethane *	ND
	1,1,2-Trichloroethane *	ND
	cis-1,3-Dichloropropene *	ND
	2-Chloroethylvinyl Ether	ND
	Bromoform	ND
	1,1,2,2-Tetrachloroethane #	ND
	Tetrachloroethylene #	ND
	Chlorobenzene	ND
	1,3-Dichlorobenzene	ND
	1,2-Dichlorobenzene	ND
	1,4-Dichlorobenzene	ND

CORPORATION

PAGE 7 Analytical Serv REPORT LAB # 85-03-082
RECEIVED: 03/08/85 Results by Sample Continued From Above

SAMPLE ID 850992 FRACTION 02B TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 03/07/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

CORPORATION

PAGE 8 Analytical Serv REPORT LAB # 85-03-082
RECEIVED: 03/08/85 Results by Sample

SAMPLE ID 850992 FRACTION 02C TEST CODE GC 602 NAME EPA Method 602/GC
Date & Time Collected 03/07/85 Category

DATA FILE D DATE INJECTED 03/12/85 ANALYST RAA VERIFIED BY JSG
CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT.
SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79).

CORPORATION

PAGE 9 Analytical Serv REPORT LAB # 85-03-082
RECEIVED: 03/08/85 Results by Sample

SAMPLE ID 850992 FRACTION 02A TEST CODE H1RCRA NAME RCRA Herbicides
Date & Time Collected 03/07/85 Category

DATE EXTRACTED 03/21/85 DATE INJECTED 04/02/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER HERBICIDES	RESULT	DET. LIMIT
2,4-D	ND	5			
2,4,5-TP (Silvex)	ND	5			
2,4,5-T	ND	5			

NOTES AND DEFINITIONS FOR THIS REPORT.
ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

SAMPLE ID 850992 FRACTION 02A TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 03/07/85 Category

DATE EXTRACTED 03/13/85 DATE INJECTED 03/20/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER PESTICIDES	RESULT	DET. LIMIT
Lindane	ND	0.1			
Endrin	ND	0.1			
Methoxychlor	ND	1.0			
Toxaphene	ND	1.0			
Chlordane	ND	1.0			

NOTES AND DEFINITIONS FOR THIS REPORT.

CORPORATION

PAGE 10 Analytical Serv REPORT LAB # 85-03-082
RECEIVED: 03/08/85 Results by Sample Continued From Above

SAMPLE ID 850992 FRACTION 02A TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 03/07/85 Category

ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

CORPORATION

PAGE 11 Analytical Serv REPORT LAB # 85-03-082
RECEIVED: 03/08/85 Results by Sample

SAMPLE ID 850993 FRACTION 03G TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 03/07/85 Category

DATE ANALYZED 03/14/85 VERIFIED BY GMC

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	<.002	AS	Arsenic	<.060
BA	Barium	0.034	HG	Mercury	<.0002
CD	Cadmium	<.002	PB	Lead	<.080
CR	Chromium	<.005	SE	Selenium	<.080

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/ml unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

CORPORATION

PAGE 12 Analytical Serv REPORT LAB # 85-03-082
RECEIVED: 03/08/85 Results by Sample

SAMPLE ID 850993 FRACTION 03B TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 03/07/85 Category

DATA FILE B DATE INJECTED 03/13/85 ANALYST MCL VERIFIED BY JSG
CONC. FACTOR INSTRUMENT b COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT
	Chloromethane	ND
	Bromomethane	ND
	Vinyl Chloride	ND
	Chloroethane	ND
	Methylene Chloride	ND
	Trichlorofluoromethane	ND
	1,1-Dichloroethene	ND
	1,1-Dichloroethane	ND
	trans-1,2-Dichloroethene	ND
	Chloroform	ND
	1,2-Dichloroethane	ND
	1,1,1-Trichloroethane	ND
	Carbon Tetrachloride	ND
	Bromodichloromethane	ND
	1,2-Dichloropropane	ND
	trans-1,3-Dichloropropene	ND

SCAN	COMPOUND	RESULT
	Trichloroethene	ND
	Dibromochloromethane *	ND
	1,1,2-Trichloroethane *	ND
	cis-1,3-Dichloropropene *	ND
	2-Chloroethylvinyl Ether	ND
	Bromoform	ND
	1,1,2,2-Tetrachloroethane #	ND
	Tetrachloroethylene #	ND
	Chlorobenzene	ND
	1,3-Dichlorobenzene	ND
	1,2-Dichlorobenzene	ND
	1,4-Dichlorobenzene	ND

CORPORATION

PAGE 13 Analytical Serv REPORT LAB # 85-03-082
RECEIVED: 03/08/85 Results by Sample Continued From Above

SAMPLE ID 850993 FRACTION 03B TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 03/07/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

CORPORATION

PAGE 14 Analytical Serv REPORT LAB # 85-03-082
RECEIVED: 03/08/85 Results by Sample

SAMPLE ID 850993 FRACTION 03C TEST CODE GC 602 NAME EPA Method 602/GC
Date & Time Collected 03/07/85 Category

DATA FILE D DATE INJECTED 03/12/85 ANALYST RAA VERIFIED BY JSG
CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT.
SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79).

CORPORATION

PAGE 15 Analytical Serv REPORT LAB # 85-03-082
RECEIVED: 03/08/85 Results by Sample

SAMPLE ID 850993 FRACTION 03A TEST CODE H1RCRA NAME RCRA Herbicides
Date & Time Collected 03/07/85 Category

DATE EXTRACTED 03/21/85 DATE INJECTED 04/02/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER HERBICIDES	RESULT	DET. LIMIT
2,4-D	ND	5			
2,4,5-TP (Silvex)	ND	5			
2,4,5-T	ND	5			

NOTES AND DEFINITIONS FOR THIS REPORT.
ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

SAMPLE ID 850993 FRACTION 03A TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 03/07/85 Category

DATE EXTRACTED 03/13/85 DATE INJECTED 03/20/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER PESTICIDES	RESULT	DET. LIMIT
Lindane	ND	0.1			
Endrin	ND	0.1			
Methoxychlor	ND	1.0			
Toxaphene	ND	1.0			
Chlordane	ND	1.0			

NOTES AND DEFINITIONS FOR THIS REPORT.

CORPORATION

PAGE 16 Analytical Serv REPORT LAB # 85-03-082
RECEIVED: 03/08/85 Results by Sample Continued From Above

SAMPLE ID 850993 FRACTION 03A TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 03/07/85 Category

ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

CORPORATION

REPORT LAB # 85-03-098

[illegible] 11:59:58

[illegible]

Analytical Services
8301 MoPac Blvd
P O Box 9748
Austin, Texas 78766
ATTN:
PHONE (512) 454-4797

CERTIFIED BY

CONTACT CONOVER

[illegible]

Footnotes and Comments

t Indicates a value less than 5 times the detection limit. Potential error for such low values ranges between 50 and 100%.

Q Indicates that spike recovery for this analysis on the specific matrix was not within acceptable limits indicating an interferent present.

[illegible]

Analytical Serv TEST CODES and NAMES used on this report

EP MET RCRA Metals
GC 601 EPA Method 601/GC
GC 602 EPA Method 602/GC

CORPORATION

Client: [illegible] Analytical Serv. REPORT LAB # 85-03-098
Attention: [illegible] Results by Sample

Sample ID: [illegible] FRACTION QIC TEST CODE EP Met NAME RCRA Metals
Date & Time Collected 03/03/85 Category

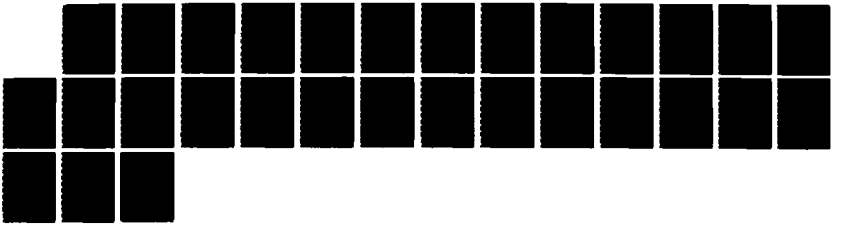
Date Analyzed 03/14/85 VERIFIED BY GMC

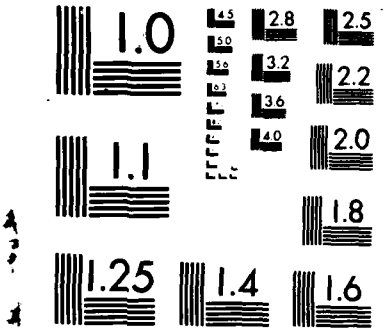
CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	< 0.002	AS	Arsenic	< 0.060
BA	Barium	0.39	HG	Mercury	0.0008
CD	Cadmium	< 0.002	PB	Lead	< 0.080
CR	Chromium	< 0.025	SE	Selenium	< 0.080

CODES AND DEFINITIONS FOR THIS REPORT

Report Basis: Dry Weight unless otherwise specified
NA = not analyzed
ND = less than 3 times the detection limit
All elements determined by ICPES except Hg

AD-A174 196 INSTALLATION ESTORATION PROGRAM PHASE II 9/9
CONFIRMATION/QUANTIFICATION STAGE 1 VOLUME 2 APPENDIX A
(U) RADIAN CORP AUSTIN TX OCT 86 F33615-84-D-4402
UNCLASSIFIED F/G 13/2 NL





MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

CORPORATION

PAGE 3 Analytical Serv REPORT LAB # 85-03-098
RECEIVED: 03/08/85 Results by Sample

SAMPLE ID S-0973 FRACTION 01A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 03/08/85 Category

DATA FILE 8 DATE INJECTED 03/13/85 ANALYST MCL VERIFIED BY JSG
CONC FACTOR 1 INSTRUMENT b COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Chloromethane	ND		Trichloroethene	ND
	Bromomethane	ND		Dibromochloromethane *	ND
	Vinyl Chloride	ND		1,1,2-Trichloroethane *	ND
	Chloroethane	ND		cis-1,3-Dichloropropene *	ND
	Methylene Chloride	ND		2-Chloroethylvinyl Ether	ND
	Trichlorofluoromethane	ND		Bromoform	ND
	1,1-Dichloroethene	ND		1,1,2,2-Tetrachloroethane #	ND
	1,1-Dichloroethane	ND		Tetrachloroethylene #	ND
	trans-1,2-Dichloroethene	ND		Chlorobenzene	ND
	Chloroform	ND		1,3-Dichlorobenzene	ND
	1,2-Dichloroethane	ND		1,2-Dichlorobenzene	ND
	1,1,1-Trichloroethane	ND		1,4-Dichlorobenzene	ND
	[illegible]	ND			
	[illegible]	ND			
	[illegible]	ND			
	[illegible]	ND			

CORPORATION

PAGE 4 Analytical Serv REPORT LAB # 85-03-098
RECEIVED 03/08/85 Results by Sample Continued From Above

SAMPLE ID [illegible] FRACTION 01A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 03/08/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT

SCAN # = scan number or retention time on chromatogram.
All results reported in ug/l unless otherwise specified.
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
*Bromoform, bromomethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

CORPORATION

PAGE 1 Analytical Serv REPORT LAB # 85-03-098
RECEIVED 03/06/85 Results by Sample

SAMPLE ID 8503-098 FRACTION Q1B TEST CODE GC 602 NAME EPA Method 602/GC
Date & Time Collected 03/08/85 Category

DATA FILE DATE INJECTED 03/12/85 ANALYST RAA VERIFIED BY JSG
FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

* Compound identification based on GC/MS criteria.
Quantitation based on external standard calibration curve.
All results reported in micrograms per liter (ug/L) unless otherwise specified.
ND = Not detected at or above the stated limit of detection. (Federal Register, 12/3/79).

CORPORATION

PAGE 1 Analytical Serv REPORT LAB # 85-03-281
RECEIVED: 03/27/85 05/03/85 09:13:52

REPORT TO: Radian
BI 4
Austin

ATTEN: Larry Franson

CLIENT: CARSWELL DOA SAMPLES: 2
COMPANY: Carswell AFB
FACILITY:

WORK ID: water, 4 and 5
TAKEN: LNF
TRANS TYPE: Fed Ex
P.O. #: 214-114-06-44
INVOICE: under separate cover

PREPARED BY: Radian Analytical Services
8501 MoPac Blvd
P.O. Box 9948
Austin, Texas 78766

ATTEN:
PHONE: (512) 454-4797

CERTIFIED BY

CONTACT CONOVER

Footnotes and Comments

* Indicates a value less than 5 times the detection limit. Potential error for such low values ranges between 50 and 100%.

@ Indicates that spike recovery for this analysis on the specific matrix was not within acceptable limits indicating an interferent present.

SAMPLE IDENTIFICATION

01 850977
02 850978

Analytical Serv TEST CODES and NAMES used on this report

EP MET	RCRA Metals
EX 509	Extraction only-509B Herb.
EX 608	Extraction only -- 608
GC 601	EPA Method 601/GC
GC 602	EPA Method 602/GC
HIRCRA	RCRA Herbicides
ONG IR	Oil and Grease, Infrared
PIRCRA	RCRA Pesticides
PHEN A	Total Phenolics
TOC	Total Organic Carbon
TOX 1	TOX Single Analysis

CORPORATION

PAGE 2 Analytical Serv REPORT LAB # 85-03-281
RECEIVED: 03/27-85 RESULTS BY TEST

TEST CODE default units	Sample 01 (entered units)	Sample 02 (entered units)
EX_509 date complete	03/29/85	03/29/85
EX_608 date complete	04/02/85	04/02/85
ONG_IR mg/L	<1	<1
PHEN_A mg/L	<.005	0.02
TOC mg/L	<1	<1
TOX_1 mg/L	<.01	

CORPORATION

PAGE 3 Analytical Serv REPORT LAB # 85-03-281
RECEIVED: 03/27/85 Results by Sample

SAMPLE ID 950977 FRACTION Q1D TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 03/26/85 Category

DATE ANALYZED 04/26/85 VERIFIED BY GMC

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	<.002	AS	Arsenic	<.06
BA	Barium	0.032	HG	Mercury	0.0002*
CD	Cadmium	<.002	PB	Lead	<.08
CR	Chromium	<.005	SE	Selenium	<.08

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/ml unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

CORPORATION

PAGE 4 Analytical Serv REPORT LAB # 85-03-281
RECEIVED: 03/27/85 Results by Sample

SAMPLE ID 850977 FRACTION 01A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 03/26/85 Category

DATA FILE B DATE INJECTED 03/28/85 ANALYST RAA VERIFIED BY JSG
CONC. FACTOR INSTRUMENT b COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT
	Chloromethane	ND
	Bromomethane	ND
	Vinyl Chloride	ND
	Chloroethane	ND
	Methylene Chloride	ND
	Trichlorofluoromethane	ND
	1,1-Dichloroethene	ND
	1,1-Dichloroethane	ND
	trans-1,2-Dichloroethene	ND
	Chloroform	ND
	1,2-Dichloroethane	ND
	1,1,1-Trichloroethane	ND
	Carbon Tetrachloride	ND
	Bromodichloromethane	ND
	1,2-Dichloropropane	ND
	trans-1,3-Dichloropropene	ND

SCAN	COMPOUND	RESULT
	Trichloroethene	ND
	Dibromochloromethane *	ND
	1,1,2-Trichloroethane *	ND
	cis-1,3-Dichloropropene *	ND
	2-Chloroethylvinyl Ether	ND
	Bromoform	ND
	1,1,2,2-Tetrachloroethane #	ND
	Tetrachloroethylene #	ND
	Chlorobenz ne	ND
	1,3-Dichlorobenzene	ND
	1,2-Dichlorobenzene	ND
	1,4-Dichlorobenzene	ND

CORPORATION

PAGE 5 Analytical Serv REPORT LAB # 85-03-281
RECEIVED: 03/27/85 Results by Sample Continued From Above

SAMPLE ID 850977 FRACTION 01A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 03/26/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN # scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

CORPORATION

PAGE 6 Analytical Serv REPORT LAB # 85-03-281
RECEIVED: 03/27/85 Results by Sample

SAMPLE ID 850977 FRACTION 01B TEST CODE GC 602 NAME EPA Method 602/GC
Date & Time Collected 03/26/85 Category

DATA FILE D DATE INJECTED 04/01/85 ANALYST RAA VERIFIED BY JSG
CONC FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT.
SCAN # scan number or retention time on chromatogram
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79).

CORPORATION

PAGE 7 Analytical Serv REPORT LAB # 85-03-281
RECEIVED: 03/27/85 Results by Sample

SAMPLE ID 85097 FRACTION Q1C TEST CODE H1RCRA NAME RCRA Herbicides
Date & Time Collected 03/26/85 Category

DATE EXTRACTED 03/29/85 DATE INJECTED 04/02/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER HERBICIDES	RESULT	DET. LIMIT
2,4-D	ND	5			
2,4,5-TP (Silvex)	ND	5			
2,4,5-T	ND	5			

NOTES AND DEFINITIONS FOR THIS REPORT.
ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

SAMPLE ID 85097 FRACTION Q1C TEST CODE P1RCRA NAME RCRA Pesticides
Date & Time Collected 03/26/85 Category

DATE EXTRACTED 04/02/85 DATE INJECTED 04/11/85 VERIFIED BY LAK
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER PESTICIDES	RESULT	DET. LIMIT
Lindane	ND	0.1			
Endrin	ND	0.1			
Methoxychlor	ND	1.0			
Toxaphene	ND	1.0			
Chlordane	ND	1.0			

NOTES AND DEFINITIONS FOR THIS REPORT

CORPORATION

PAGE 6 Analytical Serv REPORT LAB # 85-03-281
RECEIVED: 03/27/85 Results by Sample Continued From Above

SAMPLE ID 85097 FRACTION OIC TEST CODE PIRCRA NAME RCRA Pesticides
Date & Time Collected 03/26/85 Category

ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

CORPORATION

PAGE 9 Analytical Serv REPORT LAB # 85-03-281
RECEIVED: 03/27/85 Results by Sample

SAMPLE ID 850979 FRACTION 02D TEST CODE EP MET NAME RCRA Metals
Date & Time Collected 03/26/85 Category

DATE ANALYZED 04/26/85 VERIFIED BY GMC

CODE	METAL	RESULT	CODE	METAL	RESULT
AG	Silver	< .002	AS	Arsenic	< .06
BA	Barium	0.039	HG	Mercury	0.0006*
CD	Cadmium	< .002	PB	Lead	< .08
CR	Chromium	< .005	SE	Selenium	< .08

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in ug/ml unless otherwise specified.
NA = not analyzed
* = less that 5 times the detection limit.
All elements determined by ICPES except Hg.

CORPORATION

PAGE 10 Analytical Serv REPORT LAB # 85-03-281
RECEIVED: 03/27/85 Results by Sample

SAMPLE ID 850978 FRACTION 02A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 03/26/85 Category

DATA FILE B DATE INJECTED 03/28/85 ANALYST RAA VERIFIED BY JSG
CONC FACTOR INSTRUMENT b COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT
	Chloromethane	ND
	Bromomethane	ND
	Vinyl Chloride	ND
	Chloroethane	ND
	Methylene Chloride	ND
	Trichlorofluoromethane	ND
	1,1-Dichloroethene	ND
	1,1-Dichloroethane	ND
	trans-1,2-Dichloroethene	ND
	Chloroform	ND
	1,2-Dichloroethane	ND
	1,1,1-Trichloroethane	ND
	Carbon Tetrachloride	ND
	Bromodichloromethane	ND
	1,2-Dichloropropane	ND
	trans-1,3-Dichloropropene	ND

SCAN	COMPOUND	RESULT
	Trichloroethene	ND
	Dibromochloromethane *	ND
	1,1,2-Trichloroethane *	ND
	cis-1,3-Dichloropropene *	ND
	2-Chloroethylvinyl Ether	ND
	Bromoform	ND
	1,1,2,2-Tetrachloroethane #	ND
	Tetrachloroethylene #	ND
	Chlorobenzene	ND
	1,3-Dichlorobenzene	ND
	1,2-Dichlorobenzene	ND
	1,4-Dichlorobenzene	ND

CORPORATION

PAGE 11 Analytical Serv REPORT LAB # 85-03-281
RECEIVED: 03/27/85 Results by Sample Continued From Above

SAMPLE ID 850978 FRACTION 02A TEST CODE GC 601 NAME EPA Method 601/GC
Date & Time Collected 03/26/85 Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).
*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.
#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

CORPORATION

PAGE 12 Analytical Serv REPORT LAB # 85-03-281
RECEIVED: 03/27/85 Results by Sample

SAMPLE ID 850978 FRACTION 02B TEST CODE GC 602 NAME EPA Method 602/GC
Date & Time Collected 03/26/85 Category

DATA FILE D DATE INJECTED 04/01/85 ANALYST RAA VERIFIED BY JSG
CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,3-Dichlorobenzene	ND
	Toluene	ND		1,2-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,4-Dichlorobenzene	ND

NOTES AND DEFINITIONS FOR THIS REPORT.
SCAN = scan number or retention time on chromatogram
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79).

CORPORATION

PAGE 13 Analytical Serv REPORT LAB # 85-03-281
RECEIVED: 03/27/85 Results by Sample

SAMPLE ID 850978 FRACTION 02C TEST CODE HIRCRA NAME RCRA Herbicides
Date & Time Collected 03/26/85 Category

DATE EXTRACTED 03/29/85 DATE INJECTED 04/02/85 VERIFIED BY MSF
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER HERBICIDES	RESULT	DET. LIMIT
2,4-D	ND	5			
2,4,5-TP (Silvex)	ND	5			
2,4,5-T	ND	5			

NOTES AND DEFINITIONS FOR THIS REPORT.
ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

SAMPLE ID 850978 FRACTION 02C TEST CODE PIRCRA NAME RCRA Pesticides
Date & Time Collected 03/26/85 Category

DATE EXTRACTED 04/02/85 DATE INJECTED 04/11/85 VERIFIED BY LAK
CONCENTRATION FACTOR ANALYST LHL

COMPOUND	RESULT	DET. LIMIT	OTHER PESTICIDES	RESULT	DET. LIMIT
Lindane	ND	0.1			
Endrin	ND	0.1			
Methoxychlor	ND	1.0			
Toxaphene	ND	1.0			
Chlordane	ND	1.0			

NOTES AND DEFINITIONS FOR THIS REPORT

CORPORATION

PAGE 14 Analytical Serv REPORT LAB # 85-03-281
RECEIVED: 03/27/85 Results by Sample Continued From Above

SAMPLE ID 850978 FRACTION 02C TEST CODE PIRCRA NAME RCRA Pesticides
Date & Time Collected 03/26/85 Category

ND = not detected at the specified detection limit.
All results reported in micrograms/liter unless otherwise specified.

CORPORATION

PAGE 1 Analytical Serv REPORT LAB # 85-05-161

RECEIVED: 05/23/85 09/12/85 10:45:00

REPORT TO: Radian
Bl. 4
Austin

ATTEN: Larry French

CLIENT: CARSWELL D06 SAMPLES: 5
COMPANY: Carswell AFB
FACILITY:

WORK ID: resample 602s
TAKEN: PAW
TRANS: PAW
TYPE:
P.O. #: 214-114-06-
INVOICE: under separate cover

PREPARED BY: Radian Analytical Services
8501 MoPac Blvd.
P.O. Box 9948
Austin, Texas 78766
ATTEN:
PHONE: (512) 454-4797

CERTIFIED BY

CONTACT CONOVER

Detection limits for -02 and -05(EPA 602) were 10 ug/L and 1000 ug/L respectively, due to the presence of non-method interferences.

Duplicate of report of 06/03/85.

Footnotes and Comments

* Indicates a value less than 5 times the detection limit. Potential error for such low values ranges between 50 and 100%.

@ Indicates that spike recovery for this analysis on the specific matrix was not within acceptable limits indicating an interferent present.

SAMPLE IDENTIFICATION

01 CAR 4A
02 CAR 5A
03 CAR 12A
04 CAR 16A
05 CAR 16B

Analytical Serv TEST CODES and NAMES used on this report

GC 602 EPA Method 602/GC

CORPORATION

PAGE 2 Analytical Serv REPORT LAB # 85-05-161
RECEIVED: 05/23/85 Results by Sample

SAMPLE ID CAR 4A FRACTION 01A TEST CODE GC 602 NAME EPA Method 602/GC
Date & Time Collected 05/22/85 Category

DATA FILE D DATE INJECTED 05/24/85 ANALYST RAA VERIFIED BY JSG
CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,4-Dichlorobenzene	ND
	Toluene	ND		1,3-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,2-Dichlorobenzene	ND
	Chlorobenzene	ND			

NOTES AND DEFINITIONS FOR THIS REPORT.
SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79).

CORPORATION

PAGE 3 Analytical Serv REPORT LAB # 85-05-161
RECEIVED: 05/23/85 Results by Sample

SAMPLE ID CAR 5A FRACTION 02A TEST CODE GC 602 NAME EPA Method 602/GC
Date & Time Collected 05/22/85 Category

DATA FILE D DATE INJECTED 05/24/85 ANALYST RAA VERIFIED BY JSG
CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,4-Dichlorobenzene	ND
	Toluene	ND		1,3-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,2-Dichlorobenzene	ND
	Chlorobenzene	ND			

NOTES AND DEFINITIONS FOR THIS REPORT.
SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79).

CORPORATION

PAGE 4 Analytical Serv REPORT LAB # 85-05-161
RECEIVED: 05/23/85 Results by Sample

SAMPLE ID CAR 12A FRACTION 03A TEST CODE GC 602 NAME EPA Method 602/GC
Date & Time Collected 05/22/85 Category

DATA FILE D DATE INJECTED 05/24/85 ANALYST RAA VERIFIED BY JSG
CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,4-Dichlorobenzene	ND
	Toluene	ND		1,3-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,2-Dichlorobenzene	ND
	Chlorobenzene	ND			

NOTES AND DEFINITIONS FOR THIS REPORT.
SCAN = scan number or retention time on chromatogram.
All results reported in ug/l. unless otherwise specified.
ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79).

CORPORATION

PAGE 5 Analytical Serv REPORT LAB # 85-05-161
RECEIVED: 05/23/85 Results by Sample

SAMPLE ID CAR 16A FRACTION Q4A TEST CODE GC 602 NAME EPA Method 602/GC
Date & Time Collected 05/22/85 Category

DATA FILE D DATE INJECTED 05/24/85 ANALYST RAA VERIFIED BY JSG
CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,4-Dichlorobenzene	ND
	Toluene	ND		1,3-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,2-Dichlorobenzene	ND
	Chlorobenzene	ND			

NOTES AND DEFINITIONS FOR THIS REPORT.
SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79).

CORPORATION

PAGE 6 Analytical Serv REPORT LAB # 85-05-161
RECEIVED: 05/23/85 Results by Sample

SAMPLE ID CAR 16B FRACTION 05A TEST CODE GC 602 NAME EPA Method 602/GC
Date & Time Collected 05/22/85 Category

DATA FILE D DATE INJECTED 05/29/85 ANALYST MSF VERIFIED BY JSG
CONC. FACTOR INSTRUMENT d COMPOUNDS DETECTED 0

SCAN	COMPOUND	RESULT	SCAN	COMPOUND	RESULT
	Benzene	ND		1,4-Dichlorobenzene	ND
	Toluene	ND		1,3-Dichlorobenzene	ND
	Ethyl Benzene	ND		1,2-Dichlorobenzene	ND
	Chlorobenzene	ND			

NOTES AND DEFINITIONS FOR THIS REPORT.
SCAN = scan number or retention time on chromatogram.
All results reported in ug/L unless otherwise specified.
ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79).

FRACTION AND TEST CODES FOR WORK NOT REPORTED ELSEWHERE

01B	:	DUP602
02B	:	DUP602
03B	:	DUP602
04B	:	DUP602
05B	:	DUP602

CORPORATION

Page 1 Analytical Serv REPORT LAB # 85-11-145
RECEIVED 11/27/85 01/09/86 13:05:52

[illegible] Region
[illegible] 4
Austin

[illegible] Supervisor

CLIENT CONSULT DOE SAMPLES 20
CONSULT Consult SFB
FACILITY

[illegible] sample
[illegible] on Ice
[illegible]
[illegible]
[illegible] 114 GA
[illegible] above [illegible] level

PREPARED Radian Analytical Services
BY 8501 MoPac Blvd
P O Box 9948
Austin Texas 78766 CERTIFIED BY
ATTEN
PHONE (512) 454-4797 CONTACT CONOVER

Duplicate of report of 12/11/85

Footnotes and Comments

& Indicates a value less than 5 times the detection limit. Potential error for such low values ranges between 50 and 100%

@ Indicates that spike recovery for this analysis on the specific matrix was not within acceptable limits indicating an interferent present

SAMPLE IDENTIFICATION

Analytical Serv TEST CODES and NAMES used on this report

AS GA Arsenic, low level
HG GA Mercury, Cold Vapor
PB GA Lead, low level
SE GA Selenium, low level

CORPORATION

[illegible] Analytical Serv. REPORT LAB # 85-11-146
[illegible] 01/02/86 13:05:52

[illegible]

CORPORATION

PAGE 1 Analytical Serv REPORT LAB # 85-11-145
RECEIVED 11/22/85 RESULTS BY TEST

TEST CODE (dry-wt basis)	Sample 01 (entered units)	Sample 02 (entered units)	Sample 03 (entered units)	Sample 04 (entered units)	Sample 05 (entered units)
AS GA (mg/kg)	0.012	0.006*	0.006*	0.009*	0.006*
HG GA (mg/kg)				0.0004*	0.0003*
PB GA (mg/kg)	< .02	0.003*	< .002	< .002	< .002
SE GA (mg/kg)	< .03	< .003	< .003	< .003	< .003

TEST CODE (dry-wt basis)	Sample 06 (entered units)	Sample 07 (entered units)	Sample 08 (entered units)	Sample 09 (entered units)	Sample 10 (entered units)
AS GA (mg/kg)	0.007*	< .003	0.004*	0.005*	0.019
HG GA (mg/kg)	0.0002*				
PB GA (mg/kg)	< .001	< .002	< .002	< .002	< .002
SE GA (mg/kg)	0.004*	0.003*	0.004*	0.003*	< .003

TEST CODE (dry-wt basis)	Sample 11 (entered units)	Sample 12 (entered units)	Sample 13 (entered units)	Sample 14 (entered units)	Sample 15 (entered units)
AS GA (mg/kg)	< .003	0.004*	0.041	< .003	< .003
PB GA (mg/kg)	< .002	< .002	< .002	< .002	< .002

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RESULTS BY TEST

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SE GR	<.03	<.003	<.003	<.003	<.003

TEST CODE detection units	Sample 16 (entered units)	Sample 17 (entered units)	Sample 18 (entered units)	Sample 19 (entered units)	Sample 20 (entered units)
AG GR	0.004*	0.056	0.042	<.003	0.003*
PB GR	<.002	<.002	<.002	<.002	<.002
SE GR	<.003	<.003	<.003	<.003	<.003

END

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